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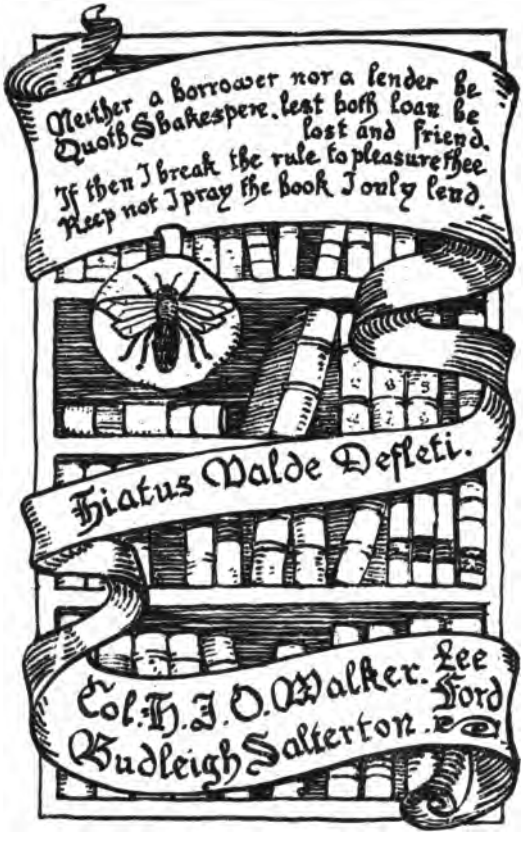
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If then I break the rule to pleasure thee
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Hiatus Valde Defleti.
Col. H. J. O. Walker. Lee Ford
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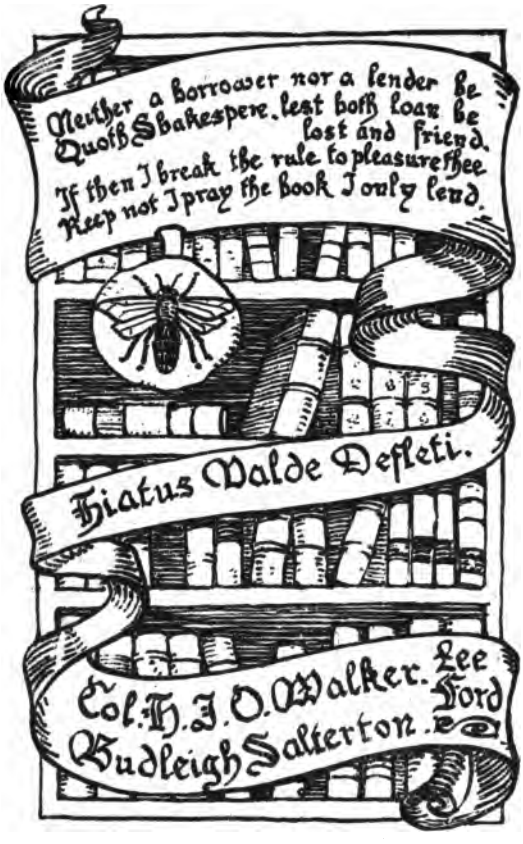
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Col. H. J. O. Walker. Lee
Budleigh Salterton. Ford

FOVRE BOOKES OF HVSBANDRIE, COLLECTED BY M. CONRADVS HERESBACHIVS, Councellor to the high and mightie Prince, the Duke of *Cleue*: containing the whole *art and trade of Husbandrie, Gardening, Graffing,* and planting, with the antiquitie *and commendation thereof.*

Robt. Wood. 1700

Newly Engliſhed, and increaſed *by Barnabe Googe,* Eſquire.

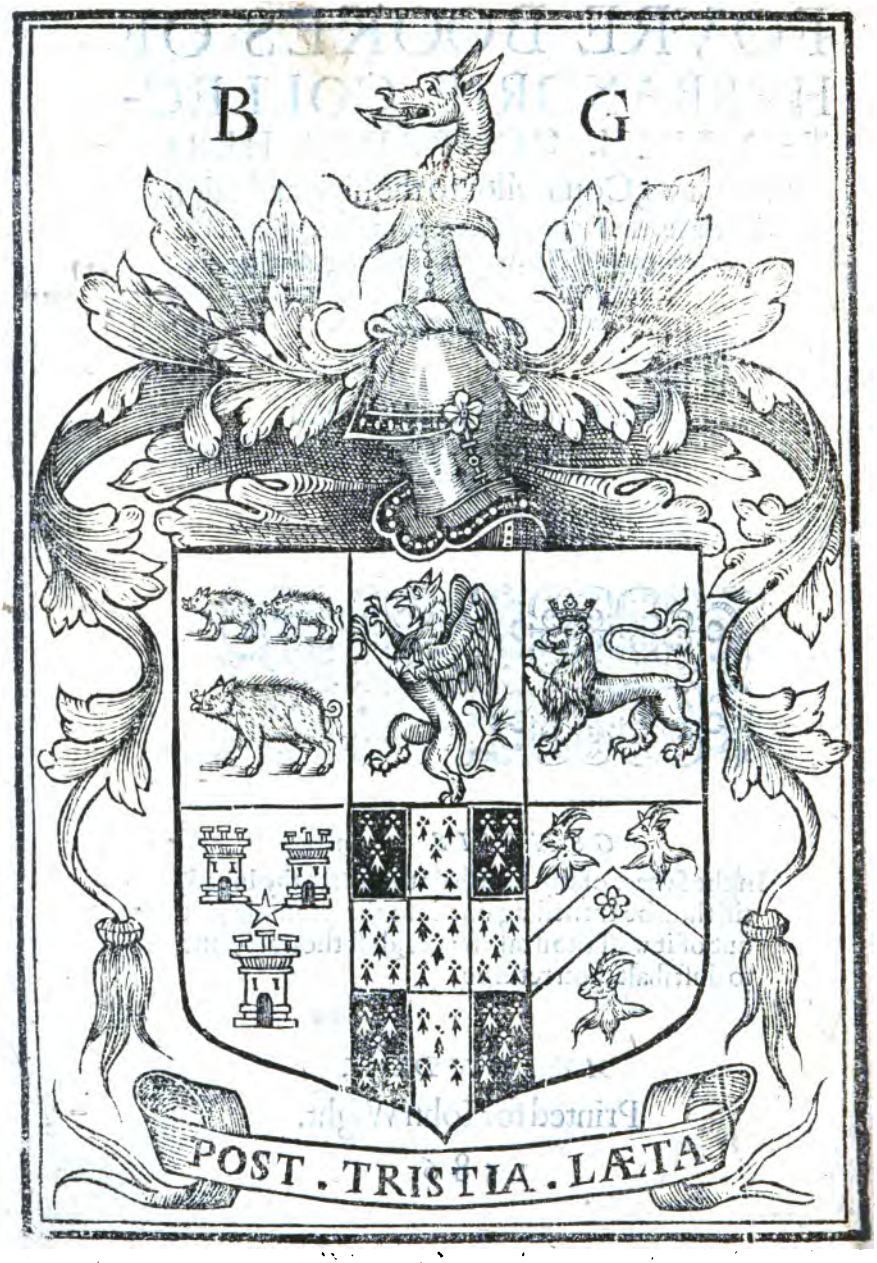
William Eyre de Wike 1617

GENESIS. 3. 19.

In the ſweate of thy face ſhalt thou eate thy bread, till thou be turned againe into the grounde, for out of it waſt thou taken: yea, duſt thou art, and to duſt ſhalt thou returne.

AT LONDON,
Printed for Iohn Wight.
1586.

de newpark 1675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TO THE RIGHT WORshipfull, his very good freend, *Syr William Fitz Williams*, Knight.

IF ſuch as haue painfully and faithfully of long time ſerued their Prince and Countrey abroad, doe moſt of all others deſerue, beſide their cõdigne reward, the beneſite of a quiet and contented life at home, I knowe no man (good Syr William Fitz Williams) *that of right may better chalenge it, then your ſelfe: who for the long time of your painfull ſeruice, the truſtie diſcharging of the treaſureſhip of Ireland, and your worthy gouerment (while it pleaſed her moſt excellent Maieſtie to appoint you for the ſaid Realme her highneſſes Deputie) haue ſo behaued your ſelfe, as euen your very enimies (whereof I knowe you had good ſtore) haue been forced to giue you, will they nill they, your iuſt deſerued commendation. I leaue to remember your ſundry and troubleſome trauailes, your Gentlemanly mind, alwaies vnweeried and vnmated with what ſo euer peril or hazard happened: I paſſe ouer (becauſe I knowe you delight not in hearing your prayſes) that honourable, and worthy for euer to be Chronicled, charge giuen vpon the Oneale at Monham, in the reſcue of your miſerably diſtreſſed and ſlaughtred companions, and Countreymen, of which there be ſundry yet remayning, that will attribute the hauing of*

their lines (next vnto God) to the prosperous successe of your valeaunt enterprise: neither hath this your loyall seruice to your Prince and Countrey at any time been accompanied, without a feruent and zealous affection towardes the Almightie, the chiefest and onely beautie of all mans actions. Since thus (as I saide) you may iustly chalenge for the good seruice you haue done in your youth, a place and time of rest and quietnesse in your greater yeeres, and that there is, in my fancie, no life so quiet, so acceptable to God, and pleasant to an honest minde, as is the life of the Countrey, where a man, withdrawing himselfe from the miseries, vanities, and vexations of this foolish and nowe too too much doting world, may giue himselfe to the sweete contemplation of God, and his workes, and the profite and reliefe of his poore distressed neighbour, to which two thinges we were chiefely created, I thought it good to sende you here (as a token and testimony of my thankefull minde, for your sundry friendshippes and curtesies shewed vnto me) a rude draught of the order and maner of the saide Countrey life, which you may vse (if it please you) for your recreation: and afterwardes (if so you thinke it meete) publish vnder your protection, to the commoditie and benefite of others.

Fare you well in great haste, from Kingstone, the first of Februarie.

1577.

Your assured louing friend,
Barnabe Googe.

THE EPISTLE TO the Reader.

I HAVE thought it meete (good Reader) for thy further profite and pleasure, to put into English, these foure bookes of husbandry, collected and set foorth, by M. CONRAD HERESBATCH, a great and a learned Counceller of the DVKE of Cleues: not thinking it reason, though I haue altered and increased his worke with mine owne readings and obseruations, ioyned with the experience of sundrye my friendes, to take from him (as diuers in the like case haue done) the honour and glory of his owne trauaile: Neither is it my minde, that this either his doings, or mine, should deface, or any waies darken the good enterprise, or panefull trauailes of such our Countriemen of England, as haue plentifully written of this matter: but alwaies haue, & doe giue them the reuerence and honour due to so vertuous and well disposed Gentlemen, namelie, Master Fitzherbert, and Master Tusser, whose workes may, in my fancie, without anie presumption, compare with any their Varro, Columella, or Palladius of Rome. You haue here set downe before you, not onelie the rules and practises of the old ancient husbandes, as well Greekes as Latines, whose verie orders (for the most part) at this daie we obserue, and from whom (if we will confesse the truth) we haue borrowed the best knowledge and skill, that our skilfullest husbands haue: but also haue ioined herewithall, the experience and husbandrie of our owne husbands of Englande, as farre as either mine owne obseruations, or the experience of sundrie my friendes would suffer me. And though I haue delt with many, both Graines, Plantes, and Trees, that are yet strangers, and vnknowne vnto vs, I doe no whit doubt, but that with good diligence and husbandry, they may in short time so be denisend and made acquainted with our soile, as they will

proſper as well as the old inhabitantes. It is not many ages agone, ſince both the Peache, the Piſtace, the Pine, the Cypreſſe, the Walnut, the Almond, the Chery, the Figge, the Abricock, the Muſke roſe, and a great ſort of others, both Trees and Plantes, being ſome Perſians, ſome Scythians, ſome Armenians, ſome Italians, and ſome Frenche, all ſtrangers and aliantes, were brought in as nouelties amongſt vs, that doe now moſt of them as well, yea and ſome of them better, being planted amongſt vs in England, then if they were at home. I haue alſo been carefull about the planting and ordring of the Vine, though ſome of my frendes would haue had it omitted, as altogether impertinent to our countrey: becauſe I am fully perſwaded (if diligence, and good huſbandry might be vſed) we might haue a reſonable good Wine growing in many places of this Realme: as vndoubtedly we had immediatly after the Conqueſt, till partly by ſlouthfulneſſe, not liking any thing long that is painefull, partly by Ciuill diſcord long continuing, it was left, and ſo with time loſt, as appeareth by a number of places in this Realme, that keepes ſtil the names of Vineyardes: and vppon many Cliffes and hilles, are yet to be ſeene the rootes and olde remaines of Vines. There is beſides Nottingham, an auncięt houſe called Chilwel, in which houſe remaineth yet as an auncient monument in a great windowe of glaſſe, the whole order of planting, proyning, ſtamping and preſſing of Vines. Beſide, ther is yet alſo growing an old Vine, that yeeldes a Grape ſufficient to make a right good wine, as was lately proued by a Gentlewoman in the ſaid houſe. There hath moreouer good experience of late yeeres been made, by two noble and honorable Barrons of this Realme, the Lord Cobham, and the Lord Williams of Tame, who both had growing about their houſes as good wines, as are in many places of France. And if they anſwered not in all pointes euery mans expectatiō, the fault is rather to be imputed to the malice and diſdaine peraduenture of the Frenchmen that kept them, then to any ill diſpoſition, or fault of the ſoile. For where haue you in any place better, or pleaſanter wines, then about Backrach, Colin, Andernach, and diuers other places of Germany, that

haue

haue in a maner the ſelfe ſame latitude and diſpoſition of the Heauens that we haue? Beſide, that the nearenes to the ſouth, is not altogether the cauſer of good wines, appeereth in that you haue about Orleans, great ſtore of good and excellent wine: whereas, if you goe to Burges, two daies iourney farther to the South, you ſhall finde a wine not woorth the drinking. The like is (as I haue harde reported by Maſter D. Dale, Embaſſadour for her Maieſtie in theſe partes) of Paris, and Barleduke, the Towne being Southward, with noughty wines: the other, a great waies farther to the North, with as good wines as may be. But admitte England would yeelde none ſo ſtrong and pleaſant wines as are deſired (as I am fully perſwaded it would) yet is it woorth the tryall & the trauaile to haue wines of our owne, though they be the ſmaller: and therefore I thought it not meete to leaue out of my booke the ordring & trimming of vines. It remaineth now (good Reader) that thou take in good part my trauaile and good will, which were cheefely employed to the pleaſuring and benefiting of thee, and not to quarell with me, as is the maner of the moſt ſort, for euery fault and ouerſight that hath eſcaped my hands, nor to looke for any curious, or well meaſured ſtile, wherewith I am not able to ſatisfie thee, and though I were, yet were it neither for the matter nor method neceſſary. And therfore I truſt thou wilt accept it as it is, ſpecially conſidering, that I neither had leiſure, nor quietneſſe at the doing of it, neither after the doing had euer any time to ouer looke it, but was driuen to deliuer it to the Printer, as I firſt wrote it: neither was I priuie to the printing, till ſuch time as it was finiſhed. And therefore (though there be faultes, and great faultes in it) I am not to be charged with them, that if time, or oportunitie had ſerued, would not haue ſuffered them.

(..)

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FINIS.

Cono. Rigo. Metella. Hermes.

METHINKETH I heare a neighyng and trampling of horſes without, goe HERMES, goe know what ſtrangers there are. CONO.

HERMES. Syr, yf my ſight faile me not, it is RIGO, the principall Secretarie.

METELLA. A goodly matter, ſcarſe haue you been two dayes at home, and nowe you muſt be ſent for agayne to the Court, perhaps to be ſent abrode in ſome embaſſage.

CONO. God forbyd, iudge the beſt, it may be he comes to ſee me of curteſie and frendſhip.

RIGO. Ah maiſter CONO, I am glad I haue founde you in the middes of your countrey ioyes and pleaſures: Surely you are a happy man, that ſhifting your ſelfe from the troubles and turmoyles of the Court, can picke out ſo quiet a life, and geuyng ouer all, can ſecretly lye hid in the pleaſant Countrey, ſuffering vs in the meane time to be toſt and tozne with the cares and buſineſſe of the common weale.

CONO. Surely I muſt confeſſe I haue taken a happy way, yf theſe goddes of the Earth would ſuffer me to enioy ſuche happineſſe, that haue bequeathed the troubleſome and ambitious life of the Court to the bottome of the Sea. But what? doo you intend to bring me againe to my olde troubles, being thus happily diſcharged?

RIGO. Nothing leſſe, though I woulde be very glad you ſhould not ſo haſtily forſake the Court, nor ridde your ſelfe from the affayres of the common wealth. You know we are not borne to liue to our ſelues, nor at our owne pleaſures: but for our countrey, our common weale and ſtate whereto we are called. There can not be a woorſe thing, then for a man to ſuffer his countrey forſaken, to come into the handes of villanous perſons, and to reioyce with him ſelfe, that being out of Gunſhot, he hath left the hurlie burlie of gouernment. And though Cato had no

neede of Rome, yet Rome and Cato his freendes had neede of hym.

CONO. I graunt you, as long as yeeres and strength wyll beare it, wee are bound to serue in our vocation: but as you your selfe are wonne to confesse, there is sometime a reasonable cause of geuing ouer. Lucullus is highly commended, that whyle his body was strong and lusty, he applied him selfe wholy to the seruice of his Countrey, and that after his honourable seruice both abrode and at home, in the ende he got him selfe quietly agayne to his booke. And Scipio, who after he had conquered both Carthage and Numidia, was content rather to leaue of and rest him selfe, then to doo as Marius dyd, who after so many worthy victories and atchiued honours, could not content him selfe when he was well, but puft vp with vnmeasurable desyre of glory and gouernment, would in his olde age contend with young men, whereby he brought him selfe at the length to most miserable miserie. Surely Cicero tooke a better way by much, when after the ouerthrowe of Catelins conspiracie, he rather contented him selfe to liue quietly at home, then by ambitious intermedling with the contentions of the common wealth, to bring him selfe in danger of his lyfe. The desyre of bearing rule in a common weale, is to be moderated with a certaine bounded modestie, specially in this age of ours, when Courtes are subiect to suche enuies, hatreds, flatteries, slaunders, couetous and ambitious desyres, and where no place is left for vertuousnesse and christian simplicitie. These are the thinges that moue Socrates and Plato from their common weales, and doo likewyse keepe me, being nowe of good yeeres and sickely, ỹ Court forsaken, in this my poore cottage at home.

Lucullus.

Scipio.

Cicero.

RIGO. Yea, but age is no sufficient excuse for you to leaue the gouernyng of your countrey. You knowe ἔργα νέων συλλαὶ γερόντων, the labour of young men, and the counsell of olde men, and how these common weales are safely alwayes guided, where olde mens heads, and young mens armes are stirryng. Father Nestor got great commendation for his counsell at the siege of Troy, where as Peleus and Laertes were despised, and accompted for benchwhistlers at home.

Nestor.

ἀκαιρῶντες

CONO. Some are tickled with glory: some with gaine, gifts, and

and vnhappie, rennyng the Cockrodden Countries, yll suche as haue one of their sicte already in the graue. Now yf we wolde content our selues with this lyfe, and geue our selues to the true and perfect lyfe,

In Princes Courtes yve should not gape nor gase,
Nor yll succesſe in suites should vexe our mynde:
No vayne nor fond deuise our eyes should daſe,
Nor lewde affection should our fancie blynde.
All suche thynges should be left and layde asyde,
Nowve lyues alas eache out of order quite:
And to our shame the tyme avvay dooth slyde,
All seeke to lyue, but none to liue vpryght.

As the Poet excellently wel wryteth in his Epigram, it were the part of a mad man or a caytyue to runne headlong without any profite into danger, when as he may liue godly and quietly at home without all trouble, as our olde fathers were woont to doo.

RIGO. It is very true, the Poete accompteth him blessed to whom this lyfe can happen: But in the meane tyme you are alone, and leade your lyfe with beastes, lowtes of the Countrey, and trees, that haue spent all your tyme before among wyse and honourable personages. Socrates affyrmeth wysdome to be learned in Cities, and not among beastes and trees. Socrates

CONO. Socrates his iudgement, though I wyll not gayne-say, yet it appeareth by his disputations with Iscomachus in Xenophon that he dyd not disalowe the Countrey mans lyfe. And as for my liuing alone, it almost happeneth here to me, as Cicero reporteth Scipio to say, that he was neuer lesse alone, then when he was alone: for being alone, I haue continuall conference with the grauest and wyselt men. For eyther I apply my selfe wholy to the sacred oracles of the Prophetes and the Apostles, who teach the true wysedome, by which both Kinges rule, and Princes gouerne, and by which our soules (whiche we cheefely ought to regard) are feede, whiche also shewe vnto vs the perfect way to that euerlasting Court aboue: or when I list, I haue the company of the greatest Princes and Monarchies of the worlde, with whom I conferre of the doubtful state and gouernement of common weales, in reading the Hystories and Chronicles of the worlde, The vse of a solitarie lyfe.

wayling, wayling as it were throughout all nations, or wayling the workes of such as write in husbandrie, I occupie my minde in the beholdyng the woonderfull workemanship of GOD in Trees, Plantes, and Beastes, whereby in the Creature, I acknowledge the Creator. And besides these dumbe companions, my freendes come sometime to see me, sometime Gentlemen, sometime Noblemen, sometime the Prince hym selfe vouchsafeth to visite me: so that there is scarsely any day but that some come vnto me, some for their pleasure, some for good wyll, and some for their businesse: For to my freendes and my neyghbours, I neyther deme my counsell, nor my trauayle. Therefore is it very expedient that good choyse be made of Lawyers, and discreete men for the Countrey, although prouided, they geue their counsell free and without wages. Many times beside, you from the Court sende me hyther processe and arbitrementes to be tryed before me. Thus haue I in the Countrey sweeter and pleasanter company then you haue, eyther in the Court or Citie.

RIGO. Tell me then I beseeche you, howe you bestowe your time, and howe you are occupied all the day? for I doubt not but you doo as much as in you lyeth to spend the time as profitably as you may.

CONO. I wyll tell you throughly, and not dissemble with you, yf ye wyll geue me the hearing, and to begin, I wyll vse the woordes and verses of the famous Poete, though in other his writinge: scarse honest, yet in this speaking very graue & wyse.

Fyrst serued on knees the Maiestie diuine,
My Seruantes next and ground I ouerlooke:
To euery man his taske I doo assigne,
When this is doone I get me to my booke.

I vse commonly to ryse first of all mee selfe, specially in Sommer, when we loose the healthfullest and sweetest time with sluggishnesse. Aristode accompteth early rysing to be best both for health, wealth, and studie. In the Winter yf I be loth to ryse, yf either the vnseasonablenesse of the weather, or sickenesse cause me to keepe my bed, I commit all to my Steward, whose faith and diligence I am sure of, whom I haue so well instructed, that I may

may lafely make him my deputie, I haue alſo Daricle my maide, ſo ſkilfull in huſbandrie, that ſhe may well be my wyues ſuffragan, theſe twayne we appoynt to ſupply our places: but yf the weather and time ſerue, I play the woorkemaiſter mee ſelfe. And though I haue a Bailiffe as ſkilfull as may be, yet remembring the olde ſayeing, that the beſt doung for the feelde is the maiſters foote, and the beſt prouender for the horſe the maiſters eye, I play the ouerſeer mee ſelfe. That it is holſome to ryſe betimes, I am perſwaded both by the counſell of the moſt graue Philoſophers, and beſides by myne owne experience. When my Seruantes are all ſet to woorke, and euery man as buſie as may be, I get me into my Cloſet to ſerue GOD, and to reade the holy Scriptures: (for this order I alwayes keepe, to appoint mee ſelfe euery day my taſke, in reading ſome part eyther of the old Teſtament or of the newe): that doone, I write or reade ſuch thinges as I thinke moſt neceſſarie, or diſpatche what buſineſſe ſo euer I haue in my houſe, or with Soutars abrode. A litle before dinner I walke abrode, if it be faire, eyther in my Garden, or in the Feelde, if it be foule, in my Galerie: when I come in, I ſtraine an Egge, a Chick, a peece of Kid, or a peece of Veale, Fiſhe, Butter, and ſuche like, as my Foldes, my Yarde, or my Dayrie and Fiſhpoudes wyl yeelde, ſometime a Shallet, or ſuch fruites as the Garden or Orchard doeth beare: whiche victuals without any charges my wyfe prouideth me, wherewith I content mee ſelfe aſwell, as yf I had the dayntieſt diſhe in Europe. I neuer lightly ſit aboue one houre at my meate: after dinner I paſſe the tyme with talking with my wyfe, my ſeruantes, or yf I haue any, with my gheſtes: I riſe and walke about my ground, where I viewe my woorkemen, my paſtures, my medowes, my corne, and my cattel. When I am in the Countrey, I goe euery day, yf the weather be good, and no other great buſineſſe, about my grounde: if not euery day, at the leaſt once in two or three dayes: as often as I come to the Citie from the Countrey, I doo the like, to vnderſtand howe my ground is huſbanded, and what is doone, what vndoone: neither doo I euer goe about it, but ſome good commeth of my trauayle. In the meane whyle I beholde the woonderfull wyſdome of Nature, and the incompre-

The beſt doung for ground is the maiſters foote.

benefite wooꝛking of the mast mightie GOD in his Creatures, which as Cicero truely affirmeth, is the delicatest foode of the Soule, and the thing that maketh vs come neereſt vnto God. Heere may I with mee ſelfe, the benefites and woonderfull wooꝛkes of God, who bringeth fooꝛth Graſſe foꝛ the cattell, and greene Herbe foꝛ the vſe of man, that he may bring foode out of the Earth accoꝛding to the Pſalme. Heere he preacheth to me.

Academ. queſtio. lib. 1.

Pſalm. 104.

The fruitefull Earth that tyld in ſundry wyſe,
Vnto the eye her goodly fruites dooth yeelde:
The Violettes ſwoote that eache vvhere thicke dooꝛ ryſe,
And ſtayne vvith purple dye the pleaſant feelde,
The feelde vvith hearbes, the hearbes vvith branches braue,
The glittring flovvres that ſhine like ſtarres of lyght,
And ſpringyng faſt diſcloſe the grace they haue,
Eache hearbe vvith ſundry flovvre moſt ſvveete in ſyght.

What wooꝛkeman is there in the woꝛld, that is able to frame oꝛ counterfeyte ſuche heauenly wooꝛkes? Who could of a ſclender graſſe make Wheate oꝛ Breade, and of a tender twigge bring fooꝛth lyquide a licour as Wine? but only that mightie Looꝛde that hath created all thinges viſible and inuiſible. With theſe ſightes doo I recreate my mind, and geue thankes vnto GOD, the creatoꝛ and conſeruer of all thinges, foꝛ his great and exceeding goodneſſe, I ſing the ſong, to thee O Looꝛde belongeth prayſes in Sion, oꝛ, praiſe thou the Looꝛde O my ſoule. &c. beſeeching GOD to bleſſe the giftes that he hath geuen vs through his bountifull liberalitie, to enriche the Feeldes, and to proſper the Corne and the Graſſe, and that he will crowne the yeere with his plenteouſneſſe, that we may enioy the fruites of the Earth with thankeſgeuing, to the honour of him, and the profite of our neighbour. Then returning home, I goe to writing oꝛ reading, oꝛ ſuche other buſineſſe as I haue: but with ſtudy, oꝛ inuention, I neuer meddle, in three houres after I haue dyned. I ſuppe with a ſmal pittance, and after ſupper I eyther ſeelbourne oꝛ neuer write oꝛ reade, but rather paſſe the time in ſeeing my Sheepe come home from the Feelde, and my Oxen dragging home the Plowe with weerie neckes, in beholding the pleaſant Paſtures ſweetely ſmelling about my houſe, oꝛ my heardes of cattel lowing hard by me. ſometime I lie to reſt me vnder an old

Holme,

holme, sometime vpon the greene grasse, in the meanetime passeth by me the pleasant Riuer, the streames falling from the springes with a comfortable noyse, or els walking by the Riuers syde, or in my Garden, or necrest pastures, I conferre with my Wife or Seruantes of huswifry, appointing what I wil haue done: if my Baillife haue any thing to say, if any thing be to be bought or solde, for a good husband, as Cato sayth, must rather be a sellar then a byer. Sometimes (specially in Winter) after supper, I make my Minister to tell something out of the holy Scripture, or els some pleasant storie, so that it be honest and godly, and sayth as may edifie. Two or three houres after supper I get me to bedde, and commonly as I said before, the last in the house, except my Chamberlayne and my Steward.

A good husband must rather be a sellar then a byer.

RIGO. In the meane time being farre from the Churche, neither can you heare the sermons, nor be present with your wyfe & your householde at seruice: for your owne part though ye may supply the matter with reading, yet your wyfe and your seruantes can not so do.

CONO. For my part (without vaunt be it spoken,) I haue seruice euery day at certaine appointed houres, where preacheth to me dayly the Prophetes, the Apostles, Basil, Chrisostome, Nazianzen, Cyrill, Cyprian, Ambrose, Austen, and other excellent preachers, whom I am sure I heare with greater profite, then yf I should heare your sir Iohn lacklatines and fonde fellowes in your Churches. My wyfe also being present at reading, readeth the Bible and certaine Psalmes translated into our owne tongue, if there be any thing to hard or darke for her, I make her to vnderstand it: besides, she hath priuate prayers of her owne that she vseth: in the meane time I haue one, that vpon the holy dayes (if the weather or our infirmitie be such as we can not goe to Church) readeth the Gospell, teacheth the Catechisme, and ministreth the Sacramentes when time requires: but in the Summer time, if the weather be not vnreasonable, we goe alwayes vpon the Sundayes and Festiuall dayes to our Parishe Churche, where heareth our Curate, and receaue the blessed Communion: as for my household, I bring them to this order, that they alwayes serue God before their going to worke, and

at their comming to weakes. It is written of Anthonie the Ermite, that being demaunded of a certaine Philosopher, howe he coulde in the solitarie wyldernesse without any bookes, occupie him selfe in the studie of diuinitie: He answeared, that the whole worlde serued him for bookes, as a well furnished Librarie, in which he alwayes read the woonderfull workemanship of God, which in euery place stood before his eyes. In the like sort haue I my household seruantes well instructed in the cheefe groundes of true religion, who leauyng to their vocation and innocencie of their life, not caried away with the vaine entisementes and pleasures of Cities, doo beholde the Maiestie of GOD in his woorkes, and honour the Creator in his Creatures, not only vpon the Sundayes, but euery day throughe the yeere, where they may also heare the lytle Birdes, & other creatures in their kindes, setting out the glory and Maiestie of God.

The saying of saint Anthonie.

RIGO. You seeme to tell me of a Schoole of diuinitie, and not of a husbandmans Cottage, this was the very order of the Patriarkes, and the Monasteries in the Primatiue Churche.

CONO. In deede Chrisostome woulde haue all Christians, maried folkes and vnmaried, to leade their liues accordyng to the rule and order of Monkes: but of such Monkes as liued in those dayes, not such good felowes as ours be nowe: for the profession of a Monke in that age, was no other but the life of the purest and perfectest Christians, whiche kinde of life the olde Patriarkes as the Scriptures doo witnesse did leade.

Homelie. 56 vpon the. 16 of Matth. and in other places.

RIGO. I oftentimes woondred, that hauing so goodly a house and so well furnished in the Citie as you haue, what you meant to delite rather to dwell in the Countrey: but nowe that I see the good order of your life, I leeme to woonder any longer.

CONO. It is naturall to me, and left me by my parentes, to delight in husbandrie: for my Father, my Graundfather, my great Graundfather, and as farre as I can fetche my petigree, all my Auncestours were occupiers of husbandry, and were all borne and died in this house that you see.

RIGO. I remember not long since, being in businesse with the Chauncellour Hyplagraphus, a sober man, your neighbour, and one that delightes in husbandry, it was my chaunce to see your fa-

ther,

ther, surely a man would haue taken him for olde Laertes in Homer, or rather for Abram, or Isahac, and as the Chauncellour tolde me, he was foure score and tenne yeeres olde: but so faire he bare his age, as I tooke him to be scarse fiftie, his memorie and iudgement seemed to serue him wonderous well, he would talke of the affaires of the Countrey, of the antiquities there abouts, of the storyes of the Scripture, so sweetely and eloquently, as I was wonderfully in loue with him: he had the Prophetes and the Euangelistes at his fingers endes, so that I sawe the noble men had him in estimation, not without great cause.

I CONO. In deede he tooke suche delight in the holy Scriptures, as no day passed him without reading some part of them: he vsed to goe commonly euery day to the next Parishe Churche, neither would he misse any Sermon that he could heare of, he brought both Preacher and Priest into order, and caused them to frame their liues according to the rule of the Gospell.

RIGO. You paynt me here the patterne of a Bishoppe, or an ouerseer: in deede the most part of these Priestes had neede of suche ouerseers to restraine their couetousnesse, the spring of all their abuses.

CONO. To returne to my quietnesse or my husbandry from whence I digressed, doo you yet marueyle howe I can delight mee selfe with this so honest and profitable a quietnesse, then which in the iudgement of the holiest and wyesest men, there is nothing more honest nor better, neither is there beside any trade of life more meete for a Gentleman, nor traiayle more acceptable to GOD, then is the tilling of the ground. The people in the olde time (as Cato a man of great wysdome, and a teacher of husbandry dooth witnesse) as oft as they would geue a man the name of an honest man, they would call him a good husbande, comprehending in that name as muche commendation, as they could geue him: besides, most mighty Kinges and Emperours were no whit ashamed to professe this trade, as Xenophon reporteth of king Cyrus: the like writeth Quintus Curtius of Abdolominus. Numa the king of the Romanes bare a singuler affection to husbandry, for that he thought there was no kinde of life so fitte to maintaine either peace or warres, or for the preuision of a mans life,

The commendation of husbandry.

Emperours and kinges professours of husbandry.

life, being rather a geuer of good life, then richelle. Moreouer, Hiero, Philometor, Attalus, Archilaus, and a great number of Princes more, were delighted with ỳ profession of hul bandry: this knowledge is allo highly commended by Homer, the very fountaine in his time of wyledome, whereas he describeth Alcinous the king of the Pheaces, whose delight in the planting and pleasures of his Orchardes was woonderfull. And Laertes the olde man, that with his continuall occupying of hul bandry, brought his minde better to beare the absence of his sonne. Hesiodus in his woorks τῶν ἔργων καὶ ἡμερῶν geueth great prayse to Astrea, that being banished the Citie, gaue him selfe to the life of the Countrey: Yea the ground hath beforetime been tilled by the handes of Emperours, the Earth in the meane time reioysing to be tome with a Victoryes shaare, and to be plowed with the handes of a tryumphant Conquerer, eyther because they dealt with the like regarde in their seede, as in their warres, or vsed suche diligence in the Corne feeldes, as they dyd in the Campe, or els because all things handled with honest and vertuous fyngers prosper the better, beyng more carefully looked to. Serranus when he was called to honour, was found sowing of seede. The Dictators office was brought by the Purceuant to Cincinatus being all naked and besmeared with sweat and dust. The Purceuantes had fyrst their name of calling Senatours and Gouernours, out of the Countrey to the Citie. In like sort had this name at the first, the Fabij, the Pisons, the Curij, the Lentuli, the Ciceroes, the Pilumni, and other auncient houses. Horace telleth, that of hul bandmen haue been bread the valyauntest and woorthyest Soudiers, affyrming that the hand that hath been vsed to the Spade, procueth often of greatest value in the Feelde. Homer reporteth a great valiancie in Vlisses his Nedheard in the slaughter of those felowes that woulde haue ranished his maistresse. Most certayne it is, that a great number of Emperours haue sprong from the Plowe. And to let others goe, it is knowen that the Emperours Galerius and Maximinus, came both of them from poore Herdmen to the imperiall dignitie. The like is written of Iustine, Constancianus, Probus, and Aurelianus. The stories report, that M. Curius the Emperour was found in his house boyling of a Rape roote, when he refused the great summes of golde brought

Serranus.

Cincinatus.

Hulbandmē come to be Emperours.

brought by the Sammites Embassadours. What shuld I speake of the antiquitie of it: the holy Scriptures declare husbandry to be the auncientest of al trades. And to begin with the very beginning of man, and that neither Osyris, nor Dionysius, were the fyrst founders of this knowledge, as the Paynims fable, but that the most mightie Lorde him selfe did fyrst ordayne it: for Adam and his sonnes were all husbandmen, Noe was a planter of Vines, Abraham, Isaac, and Iacob, were shepheardes, Saul from his Asses, and Dauid from his sheepe were called to the crowne, Eliseus and Amos of shepheardes were made Prophetes. Ozias as we reade professed husbandry. Iesus the sonne of Syrache commending husbandry above the rest, sayth, he customably vsed him selfe to hold the Plough, to driue the Cart, and to keepe Cattell: but what neede we more? Our Sauiour CHRISTE him selfe gloryeth to be the sonne of a husbandman, and frameth his parables of planting of Vines, of sheepe and Shepheardes: moreouer, as it is in Luke, our Lorde seemeth to be a teacher of husbandry, where he sheweth, that trees are to be digged about and dunged, that they may prosper the better. For sith this knowledge is of al other most innocent, and without which it is most plaine we are not able to liue: the best and the godliest men haue alwayes imbraced it, and the olde fathers haue euer counted it the very Colin Germane to wysedome. Cicero calleth it the mistresse of iustice, diligens, and thryftinesse: some others call it the Mother and Nurs of al other artes. For whereas we may liue without the other, without this we are not able to sustayne our life: besides, the gayne that hereof aryseth, is most godly, and least subiect to enuie, for it hath to deale with the Earth, that restoreth with gayne such thinges as is committed vnto her, specially yf it be furthered with the blessing of GOD. The only gentelmanly way of encreasing the house, is the trade of husbandry: and for this cause they were alwayes accompted the perfectest Gentlemen, that, contenting with the liuing their auncestours left them, liued in the Countrey of their landes, not medling with figging, chopping, and changing, nor seeking their liuing by handycraftes. M. Varro in his time sayth there was great complaint made, that the Fathers forsaking the Plough and the Sickle, began to creepe into the Towne, and busied them selues rather with Pageantes

The antiquitie of husbandry.

The fyrst planter of Vines.

Husbandry the mother and nurse of all other artes.

The woorthynesse of husbandrie.

and

and Midsommer games, then with the Vineyard or the Feelde, whereas the Gouernours of Rome so deuided the yeere, as they alligned only the nienth day for busines of the Citie, and the rest of the time for the tyllage of the Countrey, whereby being hardened with labour in peace, they might the better be able to abyde the trauayle of warres. Whiche Countrey people were alwayes preferred before the people of the Citie, and more Nobilitie thought to be in them that tyld the ground abrode, then in those that liuing idely within the walles, spent their time vnder the shadowe of the Penthouse: except a man wyll, with the common sort, thinke it more honest to get his liuing with the blood and calamitie of poore soules, or not daring to beale with the swoorde to make his gayne of marchandize, and being a creature of the land, contrary to his kind, geue himselfe to the rage of the Seas, and the pleasure of the Windes, wandring like a Birde from shore to shore, and countrey to countrey, or to solowe this goodly profession of bawling at a barre, and for gaine to open his iawes at euery benche. Surely as I saide before, this onely hath been euer counted the innocentest trade of life, of al men, & in all ages. By hus bandry were made riche the goodly Fathers, Abram, Lot, Iacob, and Ioab: and most certaine it is, that this profession and this gayne, is most acceptable to GOD, when he commaunded Adam to tyll the grounde, and to get his liuing with the sweat of his browes. Thus is hus bandry of suche auethoritie, as GOD with his open witnesse hath alowed it, and afterwardes by his seruant Moses hath added his blessing vnto it, saying, I wyl geue the ground my blessing in the sixth yeere, and it shal bring forth the fruites of three yeeres. And againe, If you wyl keepe my commaundementes, I wyll send you raine in due season, and the Earth shall peelde her increase, and your trees shalbe loden with fruite, the threshing time shall last tyll the vintage, and the vintage shall endure tyll the sowing time, and you shall eate your bread with plenteousnesse. What can there be nowe more pleasant to a Christian man, then to get his liuing by suche meanes as he knoweth dooth please GOD, and to play the Philosopher in the most sweete contemplation of the benefites of GOD, and to acknowledge and reuerence the wysedome and power of the

Gene. 3.

Hus bandry pleasyng to God.

Leuit. 26.

diuine

diuine Maiestie, and his bountepulnesse to mankinde, to giue him thankes and prayse for his goodnesse, the very hearbes and Creatures in the Feelde in the meane time preaching vnto vs.

RIGO. You frame me here of a husbandman a diuine, and almost bring me in minde to become a husbandman, who alwayes hitherto with the common sort, accounted this husbandry to be a beastly and a beggerly occupation.

CONO. What diuinitie there is in it, and what a seede of the acknowledged benefites of God, you haue heard. That the common sort doo thinke it a beastly and a beggerly kinde of lyfe, it is no marueyle, syth the common people doo neuer iudge aryghe. The common people doo woonder at the pompe of the Court, and iudge them for the happiest men, that decke with golde and purple, are in greatest fauour with Princes, and Officers, and Councellours to them, litle knowing in the meane time what heapes of sorowes lyes hyd vnder that hyaue and glittering miseries. The common sort preferreth shamefull and beastly delicatse, before honest and vertuous labour, toying to consume the nyght in wantonnesse, leacherie, & villanie, and the day in sleepe and pastime, thinking suche happy, as neither behold the rysing nor setting of ỳ Sunne. But those that are of sounder iudgement, account the husbandmen most happy, yf they knewe their owne felicitie, to whom the Earth in a farre quieter maner dooth minister a sufficient liuyng.

And though vvith gorgeous gates the buyldynges hye,
VVith early greetinges alvvayes doo not flovve,
Nor seelyng garnisht gaye vvith Imagrye,
Nor richie attyre vve see, nor costly shovve:
Yet stedfast state and lyfe vnskild of guyle,
VVith vvealth yenough and pastures vvyde at vvyll,
And people strong traynde vp to payne and toyle,
And youth vvith dyet small contented styll,
VVhere godly zeale and vertues all dyd dvvell,
VVhen Iustice last dyd bidde the vvorlde farevvell.

As the Poete hath most grauely written in the prayse of the husband. Aglaus Sophidius was iudged happy by the Oracle of Apollo, because he occupied a smal corner of Arcadia, but yet sufficient for his Geor. 2.

his liuelode, where he ſpent his life without euer comming a-broade: whoſe order of lyfe ſheweth, that he was neither vexed with greedie deſyre, neither with any other trouble of minde, as Plinie witneſſeth. But I holde you to long with commendation of that which of it ſelfe is ſufficiently commended. Howe, wyfe, I pray you let vs goe to dinner.

METELLA. You ſhall lye by and by. God morowe maiſter RIGO, I thought Xenophutus had been here, who vſed to fetch my husband away: he hath by chaunce been nowe at home a weeke or twayne, which ſome miſlikyng, preferre him to moſt painefull and troubleſome buſineſſe, procuring him to be ſent in embaſſage beyond the pyllers of Hercules, and (which they would be loothe to beare them ſelues) they caſt all vppon his backe as a common packhorſe, who being nowe olde, reaſon would he ſhoulde be ſpared and ſuffered to be in quiet, that being at the laſt free from the turmoyles of the world, he myght geue him ſelfe to his prayers, and prepare him ſelfe for heauen.

RIGO. It were more for the benefite of his Countrey, that maiſter CONO came oftner to the Court, but he is the ſeldomer there, becauſe he taketh ſuch pleaſure in his husbandry: howbeit, I came for no ſuch purpoſe, but only to viſite him, beyng my olde freend.

CONO. You muſt beare with a womans babbling.

RIGO. I pray you, ſins it is not yet dinner tyme, let vs walke about, that I may viewe your houſe tyll dinner be redy.

CONO. If it pleaſe you, I wyll ſhewe you my houſe, where I haue appoynted my kyngdome.

RIGO. Nowe ſurely you haue as happy & as pleaſant a kingdome as may be.

Who is happy.

CONO. In deede I confeſſe mee ſelfe happy in this, that contentyng mee ſelfe with my poore eſtate, I deſyre no more: for as he ſayth.

Horace.

The man that moſt dooth here poſſeſſe,
Thou canſt not iuſtly happy name,
But he whom GOD with gifres dooth bleſſe,
And well dooth knowe to vſe the ſame:
Him mayeſt thou rather rightly call,
A happy man aboue them all.

Surely I,

surely I, in this my kingdome, or rather poore cottage, am more happy then a great sort of Kinges and Princes of the world, that are lordes of so many and so large dominions. Riches are not to be measured by their multitude, but by the minde of the possessor. And as Dauid sayth, a litle is better with the godly, then the great richesse of the wicked. Cincinatus occupied onely foure acres of grounde, Socrates hauyng but twentie markes in all the house, was counted a riche man. So I with Virgil doo commend great possessions, but had rather occupie litle. Therefore looke not to see here the house of Lucullus, or Hyrcius, which is reported to be solde for 4000000. H S. Suche stately dwellinges and marble floores, as Cicero sayth, I despise. Who is riche.

RIGO. Notwithstandyng, here is all thinges faire, and as it appeareth commodiously buylt.

CONO. For my part, I build my house, as they say, accordyng to my purse, agreeable to my calling, and to my liuing. I wyl shewe you in order howe I haue cast it, folowyng the aduise of Isomachus in Xenophon, whom Cicero doth greatly commend. And yet, the seate of my house hath mooued me to builde it after this sort. Cato would haue a man long in determination to builde, but to plant and sowe out of hand. Our fathers herebefore obserued the same, and seemed to folowe the counsell of Cato and Columella, with whom agreeth also Plinie, that the owner build his house in good order, so as neither the house be to great for the lande, nor the lande to muche for the house. And herein it is written, that L. Lucullus, and Q. Scæuola were both to blame: for one of them had a greater house then was answearable to his liuing: the other, which was Scæuola, built a smaller house then his liuyng required, where both are vnprofitable to the maister: For the great ruinous house, not onely is more chargeable in buildyng, but also asketh greater cost in the maintayning. Againe, if the house be to litle, it wyl be a destruction and losse of your Corne & fruites: therefore is it greatly to purpose, in what sort we build and ordeyne our house. Cato would haue the house so seated, as the ayre be good about it, and (yf it may be) placed at the bottome of a hill, looking directly South, and in a hollome corner. Varros mind is, to haue it placed towarde the East, that it may haue the sha- The order of building of a house for the Countrey. The seate of a house.

bodye in Sommer, and the Sunne in Winter: with whom Columella agreeth, saying, that yᵗ habilitie serue, the seate is to be wyshed in a hollsome place (for Cato as shal hereafter be shewed, would haue healthy standing cheefely regarded) with a fruitefull moulde, some part of it champion, some hilly, lying East or South, well watred and woodded, and standing not farre of from some hauen, or nauigable riuer, to the end he may cary and transport such thinges as him listeth. Cornelius Tacitus writeth, that the Germanes were woont to build their houses, as the Hyll, the Riuer, the Wood, or the Lake, would best suffer them.

RIGO. Hereof I thinke sprang at the fyrst so many surnames as are at this day deriued from Mountaynes, Riuers, Lakes, and Wooddes.

CONO. It may be, yet others doo counsayle, in no case to set your house neere a Marshe, or a great Riuer: for the Fennes and Marshes in the heate of the yeere, doo send foorth pestilent and deadly dampes, and a great number of venemous Creatures: which dying, for lacke of their olde moysture, infecteth the ayre, and breedeth sundry and strange diseases. Homer affyrmeth very truely, that the ayre whiche in the mornyng commeth from the Riuer, is very vnhollsome and daungerous: and therefore yᵗ the house must needes be built neere a Riuer, they would haue suche heede taken, as the Riuer rather stande on the backside of the house, then before it: and that the front of the house be turned from the hurtfull and vnhollsome wyndes, and placed toward ye healthiest quarters. Sins all waters commonly with dampishe vapours in Sommer, and stincking colde mystes in Winter, except they be well purged with hollsome Windes, doo infect both man and beast with pestilence: best is it therefore in good and healthy places, to set the house toward the East, or the South, and in suspected ayres to place them agaynst the North. From the Sea it is good to be as farre as may be, because the windes that blowe from the Sea, are vnhollsome, and the space lying betwixt you and it, yeeldes alwayes a lothsome ayre. You must beware besides, that you set not your house by any great hie way, least you be molested with passingers, and troubled often tymes with more ghestes then you would haue.

RIGO.

RIGO. As farre as I remember the olde felowes vpo measure the goodnesse of their dwelling, by the qualities of their neyghbours. Neighbourhood.

CONO. You say very well, in deede I had almost forgotten a frowarde knaue to a mans neyghbour, is not one of the least mischiefes, as shalbe sayde in the end of this booke. I haue knowen sundry good men desyrous of quietnesse, that haue forsaken good dwellinges, rather then they would abyde the iniuries and troubles of suche companions: wherfore Hesiodus had some reason in saying, Πῆμα κακὸς γειτὼν ὅσσον τ' ἀγαθὸς μέγ' ὄνειαρ.

As great a mischeefe is a frovvard knaue,
As is the ioy a neighbour good to haue.

But you marueyle what I meane by suche a long preamble, truely I am the longer in this matter, because you should vnderstand the reason of building of my house. For whereas there are sundry purposes of building, and some build for pleasure, some for wantonnesse, and some for necessitie, I thought it good to resyte the minges of the olde writers, concerning the building of a house. And when as euerie one will not suffer suche curiositie as they require in ỳ placing of a house, some building vpon Riuers, some without or within the Marthe walles, who can not shunne the neighbourhood of the Riuer or the Sea, some in Lakes, some in Woodes, and some building vpon mountaynes, are driuen to supply the defect of nature with arte & industrie, I mee selfe syth I can by no meanes auoyde the neerenesse of the Riuer, do seeke as much as in mee lyes, to turne away the discomodities: and because I feele the discomoditie of the ryling of the floodes, I haue set my house in this place without the bankes, and mounted it as hie as I could: and least the rage of the water, and force of the yce should beare it away, I haue planted round about it great trees: and that I might shun the dampes of the ground, and the blastes of vnholsome windes, I haue turned my doores and my windowes to the holsomest quarters.

RIGO. Surely, eyther you, or your auncestours haue both commodiously & houndsomely placed this house, for ỳ front is double, one part looking towards ỳ East, the other towards the South,

and ſo built with Galeries and Gables, as it both receiueth the Sunne in Winter, and the ſhadowe in Sommer: beſides, you haue a fayre Porche as you enter in, that keepeth away the winde and the rayne from the doore.

CONO. All the one ſide, if you marke it, where the front is, lyeth South, receyuyng from the fyrſt corner, the riſing of the Sunne in Winter, declining ſomewhat from the Weſt, whereby it is warme in Winter, and not troubled with ouer great heate in Sommer: for this kinde of building hath an equall medlie of the Winter windes and Sommer windes, ſo that it receiueth the coole windes in Sommer, and is not ſubiect to the bitter blaſtes in Winter, though there be ſomething in it that might be amended, and that dooth not well pleaſe me.

RIGO. Some part of the building, mee thinketh, is after the Italian maner.

CONO. Some part of it, being ruinous, I built after my fancie, and ſuche as I found ſounde, I thought yenough for me to keepe the reparations.

RIGO. I pray you proceede with the deſcribing of the reſt. This baſe court ſeemeth alſo to me to be after the Italian faſhion with two gates.

CONO. This Court I thus deuiſed mee ſelfe. Here was a kinde of Court before, but not ſo commodious: therefore I made a ſquare wall here with a great gate, for the bringing in of my cariages, and a leſſer for people to paſſe in and out. In the voyde place here beſides the porche, I haue made a litle walke, couered with a Vine, with diuers ſeates in it for ſhadowe, where I many times walke and talke with ſuche ſuters as I haue: I haue in it a table of ſtone to ſuppe vpon when I am diſpoſed. Ouer against the gate, as you ſee, at the South ſide of the Court, there is a Backhouſe, and a Corne mill, with Ouens for bread, and other baked meates, there is alſo a Brewehouſe with an Daſt for drying of Malt to make Beere with.

RIGO. Surely all very handſome, and in very good order.

CONO. Theſe offices (for feare of fyre) you ſee, are all ſeuered from the houſe: there is hereunto adioyning a very fayre well, which beſides the ſeruice heere, dooth alſo ſerue my Kitchin, and

other

other houses of offices: for within the house, I haue neyther well nor fountayne, which is a great discommoditie, suche as I would geue a great deale of money to remedie, both for health & coolenesse in Sommer, and for watring my Gardens and my Orchardes. Water is one of the principallest thinges to be cared for, as the greatest cause of health both in man & beast: but this want is supplied partly by a good well without, & partly by Sesternes receauing the rayne water that falles in certayne Conduites and pipes, which water is most hollsome for the body: and beside, the Riuer is not farre of.

RIGO. Come on I pray you, let vs see this Backhouse, I heare that you haue a newe and a strange fashioned Mill of your owne deuise?

CONO. You shall see it. When as in a great house, there is great needs of Corne Mylles, and the common Milles, being farre of, the way foule, and I at myne owne libertie to grinde at home, or where I lyst, thinking to make a mill here at home, when neyther place nor auctoritie wyll serue me to builde eyther a water mill or a wind mill, and a querne, or a hand mill, dooth but a litle good: and to build a horse mill were more troublesome. When I sawe the wheeles that they vse to draw water with, turned with Asses or men, I thought in the like sort the wheele of a mill myght be turned, and after this sort deuised I this engine, whiche a couple of Asses, guided by a boy, may easilye turne, and make very fine meale, sufficient for myne owne house, and most times for my neighbours, whom I suffer to grinde tolle free.

RIGO. Surely I like well your deuise. What wyll not the diligence of man lyng to passe?

CONO. I fynde it profitable vnto me, but because it is not the speediest way of grinding, I haue beside a horse mill, whiche yf neede require, is turned about with a Jade or two.

RIGO. Lo here is a great leade placed handsomely in a Bricke furnace in the corner, whiche I thinke serueth to brewe withall.

CONO. In deede to that ende is it most occupied, but it serueth other turnes beside.

RIGO. There is a Hopper (mee thinketh) ouer the toppe of the

Malt, whereto serueth it?

CONO. It serueth to conuey downe the Malt, after it is wasted into the heare cloth, where it is dryed.

RIGO. Wherefore serueth that great Tonne?

CONO. To water the Barly in when neede is, otherwyse it serueth for a Malkatte. Hereby is a Backhouse and a Pastrie with two Ouens, one seruing for householde bread, the other for manchet for myne owne table, and for Tartes and fine baake-meates. Here are also troughes to keepe meale in, and troughes to lay leauen in, and there is a fayre table to mould vpon.

RIGO. All is handsome: but what meanes this building about your Court?

CONO. These buildinges seuered from the rest, doo serue for ghestes chambers, with a chamber for my hotte house: this syde you see lyeth agaynst the settyng of the sunne in Sommer, where the sunne may lye from noone tyll nyght.

RIGO. But that litle Ile moated about, and seuered from the court with a Bridge, seemeth to be more gorgeously and sumptuously built, I take it to be your owne lodging, where you, your wyfe, and your seruantes meane to lye safely.

CONO. It is euen so, and therefore it is built vpon a higher ground, both for the safegard of the fundation, and for the better ayre & fayrer prospect: beside, my Garden and my Orchard are adioyning to it, whiche with the sweete smell of the floures, and the fayre beautie of the trees, bringeth both health and pleasure. The wyndowes for the most part open al East, and some of them North, very fewe West, except from suche Chambers or Galleries Southward, where I dyne and suppe, to receiue the sunne in Winter abundantly, and in Sommer very litle: the Tower that you see serueth for my Douehouse.

RIGO. The great flyghtes of this house must needes fyll the maisters purse, and serue the Kitchin well.

CONO. In deede, yf as that noble and passing well learned Varro affyrmeth, they might be solde as in some ages they haue been at eyght pound a payre, or that a man might meete with suche fooles, as Columella writeth of, that haue geuen 40. pounds for a payre, I graunt I could make a good handsome gayne of them,

them, but as they be, they hardly serue myne owne table.

RIGO. What dooth not the madde desyre of pelicane pleasure? euen in our dayes of late I haue heard, there was three score Florens geuen for a payre.

CONO. I wyll keepe you no longer here about mine owne lodging, you haue serue a great number of better houses, and paradventure had rather ouer looke my outhouses.

RIGO. I had so in deede, you haue, I see, deuided your house into three partes.

CONO. So I thought it best, one for mee selfe, an other for my husbandmen, and the thirde for graine and fruite.

RIGO. What meaneth this Cell here so handsomely built at the entrance?

CONO. This is syr, my Bayliffes lodging, I lay him by the Gate, that he may see who goeth in and out, and what is brought and goeth forth, from thence he may also looke into the Kitchin, and see and heare what is there doone: for beside the meate that is dressed, there are other thinges doone there in the Winter mornings. Ouer my Gate I haue laide my Steward, from whence he may looke into the Court, and to the Gate, and ouersee his neighbour the Bayly.

RIGO. Mary syr here is watche and warde in deede, this I thinke you learned of Varro, for it is a part of his order.

CONO. Thus experience teacheth. Hereby is my storehouse.

RIGO. Mercifull God, what a sort of tooles haue you here?

CONO. Hesiodus would haue a husbande haue all his furniture redy, and wyll not haue him borowe in any case.

μή συ μὲν αἰτῆς ἄλλον, ἀλ' ἀρνῆται σὺ δὲ πᾶσι
Ηδὲ ὥρη παραμείβεται, μινύθουσι δὲ τοι ἔργον.

Of others borowe not, left they refuse to lend,
So thou shalt want, the tyme shall passe, and businesse neuer end.

Therefore I haue so furnished my Bailiffe, as he hath of euery sort two. Marcus Varro deuideth his husbandry necessaries into three partes: vowels, where he puts his owne seruantes, & such as he hyreth: halfe vowels, where his woorking cattell be: and mutes, be these that you see, whereof the smaller sort be these,

Axes, Hatchettes, and Sithes, of all ſortes, Corne Sithes, Graſſe Sithes, Stubble Sithes, Handbils, Sickles, Knives, Reaſehookes, Spades, Shouels, Wedges, Dragghookes, great Sawes, leſſer Sawes, Handſawes, Timberſawes, Pitchforkes, Iron hookes, Iron forkes, Twybilles, Dung forkes, Tonges, Sheares, Sylars, Mattockes, Fyles, Cleauers, Claſpes, Lancets, Stringes, Cutting knives, Gelding tooles, Clipping ſheares, Leauers, Prelles, Rulers, Garden Rakes, Hammers, Chippe Axes, Winches, Pulleys, Wheeles, Rakes, ſingle and double, Yokes, Collers, Bridle reynes, Headſtalles, Halters, Traaces, Cordes, Haames, Baskets, Fannes, Whippes, Flaels, Strikes, Spoakes, Drawyng knives, Sacks, Wallets, Bottels, Weede hookes, Brakes, Hempe beetelles, Diſtaues, Spindelles, Wharles, Fyrſhouels, Fyreſtones, Gredirons, Handbarowes, Dung Cartes, Wheelebarowes, Paundes, Hampers, Ropes, and Line, of all ſortes. The ſortes and partes of Plowes and Waynes, I wyll ſhewe you when we come into the court next the Heyharne. Hogſheds, Tonnes, and Veſſels, for Wine, Beere, and Water, Pipes, Tonnels, and ſuche like, ſhall likewyſe be ſhewed you, when you come to the Brewhouſe, and Windeller. With Colerakes, Syues, Sercers, Boulting tubbes, Boultars, that you ſhall ſee in the Backhouſe, and inſtrumentes for all other purpoſes, layd vp euery one in his place, till they be to be occupied: for it is very neceſſarie to haue of euery ſort two, as the number of your ſeruantes and neceſſitie requires: that yf one be loſt or broken, you be not driuen to goe a borowyng, or to leaue your woorke, wherby your men ſhalbe idle, whyle your tooles be a ſeeking. For to runne euery day to the Towne to get newe, is not for a husbandes profite. Beſide, in the meane time your ſeruantes loyter, and loſe more then the value of their tooles.

RIGO. Truely they be all placed in good order.

CONO. I place fyrſt by them ſelues, ſuche as are moſt in vſe, that they may be the redier, and next to them, ſuche as be occupied once in a moneth, or in a yeere: I geue the keeping of them al by tale, to my ſteward or my bayliffe, that they may deliuer them out as neede is, and lay them vp againe, and charge them in any

cale

eese to looke to them euery moneth, that they may mend what is amisse in them.

RIGO. Order is a iolly felowe, and no goodlier a thing in a man, then to doo euery thing orderly, and to lay vp euery thing in such order, as it may redily be found, of which a singuler example dooth Icomachus shewe in Xenophon, in his Phenician barke, wherein a woonder it is to see what a deale of stuffe he hath bestowed in so small a vessell: he caried with him all the furniture that a man should neede, and euery thing in such order placed, as they were at hand when neede was, without any trouble.

CONO. I mee selfe haue an inuentorie of all my husbandry implementes, and so hath my Bayly and his Wyfe, my steward hath the key of the storehouse, and deliuers out, and receaues as I tolde you, what euery man needes: for I wyllyngly neither borrowe nor lende: I haue a neighbour or twayne, of whom sometime I borrowe, and lend agayne: but except them, to none as Cato teacheth me.

RIGO. The same Cato also as I remember, teacheth to know a mans husbandry by his tooles, & therfore by your great number of tooles, a man may gesse you haue a great deale of occupying.

CONO. The double number of them makes the matter the greater: otherwyse, yf they were but to serue the turne, they would not seeme so many.

RIGO. I pray you goe forward with your description.

CONO. You see a boyd roome before the Kitchin, whiche is an entrie both to the Kitchin, to the folkes Chamber, and to the Orchardes, which ought to be neere together, yf any misfortune shoulde happen to the cattell in the night, that my men might speedely helpe them.

RIGO. The Kitchyng is very well handled, in that you haue so well pargetted the roofte. The Kitchin.

CONO. It is because I haue a great number of seruantes, whiche for lacke of other roome, doo dine and supper here: beside, the pargetting or seeling, is a good safetie against fyre.

RIGO. Here is a good handsome roofte by the Chimney, well hanged with reede Hearing, Bacon, and Martilmas beefe, there is also a handsome sincke by the Kitchin.

CONO. This lettiſed wall that you ſee, ioyneth to my Bayliffes chamber, ſo that he may ſee what is doone in the Kitchin, and about the houſe. Hereunto is alſo ioyned my Larder, a vault with three roomes, one ſeruing for Butter and Milke, the other for Beere and Wine, the thirde for to keepe flethe in: here haue I no wyndowes to the South, nor to the Weſt, but all to the North, and to the Eaſt, becauſe theſe quarters are leaſt ſubiect to corruption, and wyll longeſt preſerue any thing. Aboue in the loft ouer, doo I lay my corne vpon a fayre flooze, cloſely fenced and ſeeled againſt Wiſe, receauing the light by lattiſſe windowes from the North. Harde by, is an other loft very cloſe, with like windowes towarde the North, ſeruing for my fruite: for that quarter is colde, and not moiſt, whereby it preſerues beſt, both Weate, Corne, and fruite. Nowe yf you wyll goe through this dooze, you may beholde the backſide of my houſe: loe here a fayre threalthing flooze, whereupon my Corne is ſundry times threaſhed, fanned, and winnowed, and many other thinges doone, cheefely in the Winter mornynges, though I haue beſide a threalthing place in my barne. On eache ſide, are lodginges for my ſeruantes, and other roomes and loftes for ſtrawe and fodder for my cattell: and there by the ſtables, are alſo ſeruantes lodginges on euery ſide, and my maides chamber neere the Kitchin, and the wallhing houſe. You ſee this foreſtall cloſed round about, to the end that the cattel, when they be watred and put forth, while their houſes be made cleane, may be in ſafetie. And here I keepe alſo Geeſe, Duckes, Peacocks, Turkicockes, and other poultry. It is as you ſee, ſo encloſed with ſtables, barnes, and other houſes, that nothing can get out. Varro wyll in any caſe haue two courtes, an inner court with a litle pond in it of ſtanding water, or running water, in maner of a Fiſhepond, and there he would haue Horſe and Oxen, comming from the Feelde, or ſtable, to be watred and waſhed, and to ſerue likewyſe for Sheepe, Swyne, and Geeſe. In the vtter court would he haue a Lake to caſt in wheeles, ſtaues, and peeces of timber, for inſtrumentes of huſbandry, that they might there be ſeaſoned. This court he would haue often ſtrawed with ſtrawe, and Chaffe, that being trampled with cattell, it may ſerue to laye vpon the grounde.

Larder.

Corneloft.

Appeloft.

You

You see in this court a double doungh̄ill, one of them newely thrown out of the stables, an other olde one seruing for the Feelde: for new doung is nothing so good as the olde, for manuring of the ground.

RIGO. What meanes these twigges, bowes, and strawes, cast vpon the doung?

CONO. This preserues the doung, that the vapor that ꝑ ground requires, be not sucked out of the sunne: and hyther also runnes the water from the Laundry to moist it the better. Varro woulde haue here also a lodging for seruantes. But lest we tarry to long among the doungh̄illes, let vs goe see the other buildinges about the Court. These great roomes that you see, be Barnes to laye Corne in. In some places they vse houses, in others agayne, stackes set vpon proppes, which they call mowes: but the houses are a great deale better. Next to the Barnes, are the stables, standing arowe round about the Court. And because Virgil woulde haue the stable stande towarde the south, and Vitruuius, neere the fyre, I haue followed their order in building my stables. And lest I haue I set here my stable for my Cart house. I haue an other stable neere myne owne lodging, for my Horses of seruice, and Packneyes. Barnes. Stables.

RIGO. That seemeth to be very handsomely built.

CONO. The next are houses for my sheepe, and next them for Kine, Calues, & Heyfers. There is a Hogstie with two roomes, one for my farrowing sowes, the other for Hogges and Boyes. There is also a thirde stie, not farre from the walhouse, for the fatting of my Pockes: euery kinde hath their keepers lying neere them, that they may be at hand whatsoeuer chaunceth. Last of all there stands my Heybarne, which hath in the vpper roomes my Hey, and beneath, Waynes, Cartes, Carres, Waggons, Coaches, Harrowes, Sledes, Plowes, Rowlers, Wheeles, Naues, Cartshoores, Yokes, Rakes, Plowbeames, and suche other like, which are there safe from wet, and from pilferers.

RIGO. I pray you who dooth looke to all this geare, and keepeth euery man to his woorke?

CONO. My Bayliffe, as I tolde you before, ouerseeth both my woorke and my woorkemen: besides, I haue a Stewarde

that looketh to the receauing of my reuenues and commodities?

RIGO. Your Bayliffe had neede to be a skilfull and a truftie man.

CONO. You say true, for as Xenophon sayth, the choyse of a Bayliffe and a Physition ought to be one: you must choose such a one, as being a very expert husbandman, may well be able to take the charge, and not to be ignorant of those things him selfe, that he commaundeth others to doo: for nothing is well taught or learned, without example. For as Cato sayth of a husbande of the olde stampe, it goeth ill with that maister whom the Bayliffe must teache. As Iscomachus being demaunded of Socrates, whether he would buye a Bayly, as he would hire a Smith, or rather teache him him selfe at home? He answeared, he would haue him of his owne teaching.

The choyse of a Bayliffe of husbandry.

RIGO. But this is after the olde woyse, wherein no man was but skilfull: but it is a wonder, how you that haue alwayes been brought vp in Princes affayres, could in these dayes (when very fewe, except Plowmen, and such as haue no other trade of life, haue any skill in it) apply your mind so wele it, as a man would thinke you had neuer minded any other profession.

CONO. Surely I thinke he shall neuer haue a good Bayliffe, that is not able him selfe to iudge skilfully of him: nor let him euer thinke to haue his woorke well doone, that knoweth not how nor which way thinges ought to be doone, but must be faine to learne of his man: for there is none can iudge of a woorke but a woorkeman. Therefore in the choyse of a Bayliffe, I would haue foure thinges cheefely considered: that he be louing, diligent, meete to rule, and truftie: and yf you will adde a fyft, I am well contented, that is, that he be not geuen to drunkennesse: for a drunkeard looseth with his memorie the regarde of his duetie. I doo not enquire whether he haue been brought vp ciuilly or deyntely, but I would haue him a hard fellowe, brought vp from his childehood to labour, and one that were throughly well skilled, of a meane age, that he be not vnwylling to woorke for youth, nor vnable to trauayle for age. I would haue him haue some skil in Carpentrie, that if there happened to be any thing broken about his Stables, his Cartes, or any other

What thinges ought to be in a Bayliffe of husbandry.

his

his instrumentes, he might speedely mend them, and that he coulde mend Walles and Hedges. I woulde haue him also not vnskilfull in ỹ diseases of cattell: such a one as hath been brought vp with skilfull husbandes, wyll prooue meetest to haue charge. For there be a great number, that though they be skilfull ynough in their profession, yet haue they not gouernment in them: but eyther vsing to much sharpnesse, or to muche gentlenesse towardes suche as be vnder them, doo hinder the profite of their maister, and therefore I woulde haue a Bayliffe well tryed before he be taken: neither is it onely to be sought, whether he be skilfull in this craft, but whether he be trustie and louing to his maister, without whiche, he is not woorth a rushe, though his skill be neuer so great. And cheefely, he must be skilfull in this, to know what woorke is meetest for euery man: for some woorkes require strength more then skill, and others, otherwyse. And therefore in appointing of these, he ought to haue great iudgement and good discretion, which he can not haue, except he haue good skill. Therefore a Bayliffe is as well to be taught as a Smith, or a Carpenter: and the knowledge of husbandry is greater and of more difficultie. Wherefore I marueyle, that in this so necessarie an occupation, there are found so fewe maisters and prentices.

RIGO. Perhaps the tediousnesse and hardnesse thereof driueth them away.

CONO. Why haue not Orators been likewyse driuen away, for hitherto as Cicero sayth, there hath been no perfect Orator found.

RIGO. Of whom would you haue your Bayliffe to be taught?

CONO. Your question is good, I wyll shewe you, though very fewe haue taught what belongeth to a husband in all thinges, neither shall you finde many skilfull in euery point. Therefore he that shall be a Baylie, must be taught by degrees, he must fyrst begin when he is a childe, with keeping of Sheepe or Swyne, and when he is elder, with droues of cattell, and keeping of horse: he must learne next to digge, to threashe, to set, to sowe, to hedge, to build, to mend such thinges as are broken, to play the butcher, to geue drinkes and medecines to sicke cattell, and such other like thinges. The trayning of a Bayliffe.

thinges. And thus muſt he proceede from one to an other, till hauing paſſed them all, he come to be a maiſter, euen as Gregory Nazianzen teacheth of a Byſhop, and as Tully would haue a generall, after he hath borne all other offices of the feelde.

RIGO. You ſhewe me wonderfull Philoſophie.

CONO. As I ſaide at the fyrſt, his beſt age is betwixt thirtie and threeſcore: for the flames of luſtie youth beginning to abate, he wyll not be ſo hotte in his wooing: for whyle he folowes that game, he wyll haue no minde but of his minion, neither ſhal any reward be ſo welcome vnto him, as the fruite of his fancie, nor any greefe ſo great to him, as the fayling of his deſire. If he once paſſe threeſcore, he wareth ſlouthfull and vnable to labour. For I had rather haue the wooyke of a painefull and diligent Bayliffe, then the ſeruice of a great number of ſlouthful lubbers: as he that had rather haue a Lion captaine ouer Harties, then a Hart captaine ouer Lions. This muſt cheefely be looked vnto (ſins early going to wooyke is a great matter) that the Bailiffe be a good riſer, and that, ſupplying his maiſters place, he may be the fyrſt vp in the moyning, and the laſt that goeth to bedde, and that he ſee the dooyes faſt locked, and euery man in bedde, that the cattel haue meate enough, and be well littured, that he ſet forward, according to the time of the yeere, ſuche as doo loyter in their labour, that he him ſelfe goe luſtely before, that he ſuffer no man after it is day to lagge behinde, but that they folowe the Bayliffe luſtely with a courage, as yf he were their captaine in a ſkirmiſhe: and that he vſe ſundry deuiſes to cheare them vp in their labour, ſometime as it were to helpe him that fainteth, to take his toole out of his hand, and labour luſtely before him. And as a carefull ſhepheard earlie carying out his ſheepe, and bringyng them home late, looketh that he leaue none of his flocke behinde him: ſo likewyſe ought a good Baliffe to carrie out his men, and to haue good regard ouer them. If any of them happen to be hurt or ſicke, let him looke to the yeelding of them, and yf they be very ſicke, to carrie them to the ſicke folkes lodging, and to ſee that they be well ordered: and to that vſe haue I built yonder houſe that you ſee, remooued from the other buildinges, that the ſicke may be had thyther and looked vnto, ſpecially yf their diſeaſes

sickes be contagious, leaſt other ſhould be infected. It is the maſters duetie to haue ſuch regarde of the healthe of his ſeruauntes, and to haue ſuch care of them, that their ſickneſſe may be preuented by good medicines and good looking to: as to ſee that theyr meate and drinke be wholſome and good, and geuen in due ſeaſon: beſide, that the Bailiffe eate his meate with them, and not by him ſelfe, whereby it ſhalbe the better ordered. And becauſe Phiſitians are not alwayes at hand in the Countrey, it behoueth to vſe ſuch remedies as experience hath taught, and ſuch as haue holpen others of like diſeaſes. Thoſe that labour in the Sunne (becauſe the Sunne hurteth the body and the vaynes) theyr diet muſt be the thinner, that they make not to great meales, but rather often: this order keepeth them in health, and helpeth digeſtion. Some doo vſe to geue Woormewood wine, or pottage made of Woormewood. It is very neceſſarie for them ſometimes to recreate them ſelues, ſo that in the meane whyle they geue not them ſelues to noughtineſſe. There muſt be heede taken, that they drinke not when they be hotte, nor lye vppon the colde ground: yf their water be not good, it muſt be wel purified. It is very good alſo to let them drinke Barly water. We muſt remember that ſeruantes be men: beſides, ſuch good looking to, will breede a greater good will and duetie, and lightly they will ſerue the faythfuller and better when they haue their health, whiche haue had good cheriſhing in their ſickneſſe: and beſides (which is not ſo well obſerued in greater gouernours) the Bayliffe muſt beware that he deale not to cruelly, nor to gently with them, that he alwayes make much of thoſe that be diligent and paineſull, that he be not to haſtie with the wooyſer ſort, that they may rather reuerence him for his ſeueritie, then hate him for his crueltie, whiche he ſhall eaſely bring to paſſe, yf he rather beware that they offende not, then after their offence to late to puniſhe them. For there is none ſo good a bridle for an euil diſpoſed perſon, as to let him alwayes be occupied. So that Catoes ſaying therein is moſt true, that men in dooing nothing, learne to doo euill. Let them haue their allowance and their meate in due ſeaſon, let them alwayes feede togeather in one place, and the Bayliffe with them, that he may be an example to them of all thryfti-

neſſe.

neſſe. If he finde any of them to haue laboured painefully and truely, let him geue them a good countenance, & encourage them with rewardes, to make them the wyllinger to doo their duetie: beſide, let him looke that they be rather well clothed, then curiouſly apparelled, that their garmentes may keepe them from the colde and the rayne: let their wages be well paide them, that the want thereof be no excuſe for them to loyter in their labour. And as meate and apparell is neceſſarie for them, ſo likewyſe is correction. For the wyſe man ſayth, Geue a Horſe the wyp, an Aſſe the ſtaffell, and a Foole the rodde. And agayne, He that deales to gently with his ſeruauntes, ſhal make them in the ende ſtubborne and froward. Aboue all thinges let hym ſee that they feare God, let him in no wyſe ſuffer them to ſweare or to blaſpheme, nor to vſe filthy or vngodly ſpeache: but let him prouide that they be inſtructed in the Catechiſme, that they vſe prayer, that they go to Sermons vpon the holy dayes, and receaue the Sacramentes at times appoynted, that they be not hunters of Alehouſes or euill company. For as the Poet ſayth, It is lawfull to be well occupied, euen on the Feſtiuall dayes. When they haue ſerued GOD, and dyned, let them walke abrode in the ground, let them looke there be no cattell in the Corne, and ſtoppe ſuche Gappes as they fynde open, and looke that their cattell be in ſafetie abrode. To be ſhort, the Bayliffe muſt in all theſe matters be as it were a Byſhop, or a maiſter of the woorkes, ſo ſhall euery man the better doo the woorke that belongeth vnto him. The Bailyffe muſt neuer be from their heeles, leaſt in his abſence they fall to loytering, neither muſt he ſuffer them any time to be idel: he hym ſelfe muſt not be geuen to drinking or gaming, nor to hunting or fyſhing, except for his maiſters profyte: let him very ſeldome entertayne any gheſtes, except they be of his maiſters retinewe: let him not beſtowe his maiſters money about his owne marchandize, for ſuch kinde of bargainyng makes him the ſlacker in his duetie, and maketh his accomptes ſeldome fall out iuſt. Aboue all thinges this is to be willhed in the Bayliffe, that he doo not thinke hym ſelfe wyſer then his maiſter, or ſuppoſe him ſelfe to haue more ſkill then he hath, and that he alwayes ſeeke to learne ſuche thinges as he is ignorant of. For as it is very profi-

table

ble to doo any thing skilfully, so is it more hurtfull to doo it vnfowardly. Columella had rather haue a Bailiffe that could neither reade nor write, so that his memorie be good: for such a Bailiffe (saith he) wyll oftner bring his maister money, then a booke: because (not able to wryte) he can not so easely frame a false accompt. The Bailiffes wyfe must alwayes be with him, that she may keepe him from running at rouers, and may helpe him in his labours: her age must be such also, as we required in the Bailiffe before, she must be painefull, healthy, carefull, and honest, she must not be to ylfauoured, lest she be lothsome vnto him, nor to beautifull, least he doate to muche vppon her, and keepe home when he shoulde be abrode. She must in the meane time looke to the Kitchin, and to other woorkes at home, gouerne the maides, and keepe them at their woorke, looke to their necessaries, and giue them their allowance. The Baylifes wyfe.

RIGO. You seeme to me here, to make the Bailiffe a maister, and the maister a Bailiffe.

CONO. This age of ours, quite corrupted with delicacie and deyntinesse, litle regardeth the honest and profitable orders of our forefathers: for in those dayes the maisters themselues plaide the husbandes, and thought it not to goe well with the maister that must be taught by his Bailiffe, as Cato witnesseth, and Varro also complaineth, that the husbandes in his dayes had forsaken the Plowe and the Sithe, and gotten them selues within the walles, and spent their time rather in Maygames and Midsommer sightes, then with tylling the ground, or planting of Vines. Therefore Cato and the olde wryters doo attribute many thinges to the maister, that we assigne to the Bailiffe. And I, though I seeme to put the charge of the household in the handes of my Bailiffe, yet wyll I myee selfe be ouerseer, and haue euery thing doone as it appeyre, entreating gently (as I taught the Bailiffe afore) both the Bailiffe and my labourers, regardyng more their labour then my gaynes. But I carrie you about to long, being fasting, I pray you let vs goe to dinner: you shall not finde the Cookes hay, neither meant I to shew you, as you see, the palace of Lucullus: but the poore cottage of Cincinnatus, Abdolonymus, Curius. Here you see the roomes for my husbandmen,

seuered from myne owne house, but yet so, as I may easely see whatsoeuer they doo. Here I and my wyfe with our household seruantes doo lye.

RIGO. All very excellently well as may be, there is nothing wanting that is to be wished for. Maistresse METELLA, you trouble your selfe to muche, like Martha, about the prouiding of your dinner.

METELLA. Not a whit syr, you must be contented with Countrey fare, you shall neither haue reede Deere, Marchpane, nor Sturgian, nor any Courtiers fare: but an Egge, and a Sallet, a Pullet, or a peece of Lambe.

RIGO. This diete contenteth me aboue all other.

CONO. Fal to it then, & tel me how you like our countrey wine.

RIGO. Surely it passeth eyther wine of Orleans, or Anioue. I did not thinke to haue founde so good a cuppe of wine in these quarters.

CONO. The husbandry, and good season of the yere doth yeelde the same.

RIGO. Well, we sit to long at dinner. The weather being so fayre and so pleasant abroade, it is shame to sitte any longer, but to walke out and looke vpon your ground.

CONO. The weather being faire, you bring a Horse to the Feelde (as they say) when you speake to me of going abroade: for I mee selfe, yf the weather or businesse doo not let me, am euery day, according to Catoes counsell, abroade in my ground: and yf it please you, I wyll carie you abroade and shewe you my grounde. You must not looke to see the great Countreys of Metellus or Lucullus, but the possessions of a poore Countrey man, that contented with his state, would be as he is, and would not change liues with the Emperour.

Of the tylling and husbanding of the ground.

RIGO. I pray you let me here your opinion of the Feeld, and the tilture thereof: for I see you are a perfect husbande, and nothing vnskilfull. I haue a great desyre to heare some rules, and such as serue our turne best.

CONO. If it be a shame for an apprentice at the lawe, and a pleadar of causes to be ignorant of the lawe wherein he pleadeth, a greater shame is it for a professor of husbandry, to be vnskilfull

in

The good nature of the husbandman.

The degrees and sortes of ground.

Of Corne ground.

Xenophon in Œconomico, booth wyll you to marke wel the plantes and the yeeld of the Countrey, except you wyll loose your labour or fyght with God. Varro counsels you to looke whether there be in the land eyther Stone, Marble, Sande, Grauell, Raddell, Chalke, Clape, Pyrble, or Carbuncle, that is ground ouer heated and parched with the Sunne, whiche wyll marre the rootes of what seeuer commeth in it. Also yf it be wette or weepyng ground, or subiect vnto other inconueniences, and suche grounde also, according to the nature of the soyle, is good or euyl. In some Countreys stonie grounde is altogeather barren, specially for Corne and Fruite. In other places agayne, they vse stones in the manuring and bettring of their lande, as in certayne places of Arden is to be seene. Theophrastus wryteth, that the Corynthians cast away all the stones out of the Feeldes of Sardonia, and therebye made the ground the woorse, when, the stones beeing away and the Countrey hot, there was no succour left to defend the ground from the extreame heate of the Sunne. In other places in stonie and hilly groundes Otes doo prosper well. In lyke sort, in wett Countreys we must regarde the laye of the Countrey, and the nature of the seede that we sowe: for Grauell in some places is cast vppon the ground in steade of doung, and some thinges prosper best in grauelie groundes. In Barbarie (as Columella booth witnesse) the very rotten sandes exceede any other grounde in fruitefulnesse. It is also something to the purpose, whether the grauell be white, redde, or yellowe: besides, some grounde booth deceaue both with colour and qualitie. In some Countreys the blacke mould is onely esteemed: in others, the fat redde mould is thought best. In Englande, the chalkie grounde beareth good corne, and pastures very well. In some places the chicke and the clammie ground is most fruitefull. In al these it shalbe learned, what is best for the hill ground, what for the valley, what for tylled, what for the leye ground, what the mouldy digge ground requires, and what the dyke and barraine. Also in plantyng, what ground is best for Vines, what for other trees, what delightes in dric ground, what in mouldy ground. Virgil commaundeth a mellowe ground that is fatte, and wyll soone be resolued, for such ground is tylled with smallest charge and labour: the reason that vnlyke

How to knowe the goodnesse of the ground.

ly fatte and fruitfull, which greatly recompenceth the husbandes labour and charges: the woorst, is that which is dry, leane, and barrein: for both it is tylled with great labour, and besides, neither aduanceth vnto the croppe the husbandes trauayle, neither serueth it for good mowyng or pasture any time after, and therefore such ground is not to be medled withall. Also, the goodnesse of the ground is easily perceaued by perfect tokens: for a clod pinched with a little water, if in wooryking with the hand it be clammie, and cleauing, and sticketh to the fyngers like pitche, when it is handled as the Poete sayth, and breaketh not in falling to the ground, this sheweth a naturall fatnesse and richenesse to be in it: besides, you may knowe the mould that is good for Corne, by the rancke Bulrushes, Thistels, Thyseleaued grasse, Dane weort, Brambles, Blackthorne, and such like, as neuer growe but in good grounde: as on the other syde, lothsome and illfauoured weeues, declare a leane and whitter ground: Ferne, and withered plantes, a colde grounde: sadde, and heauy coloured, a moyst and a wette ground: a raddell and a stony ground, is discerned by the eye, a stiffe and tough clay, by the labour and toyle of the Plough. A good token is it also of good ground, where the Crowes and the Pyes followe in great number the Plough, scraping in the furrowes of the Plowmans. The goodnesse is likewyse knowen, by the Beanes setting, after a Raynebowe, and in a shewre of rayne folowyng a great drouthe, it yeeldeth a pleasaunt sauour: also caste it vpon appeare, by tasting a clodde that hath been wasted in an earthen vessell, you finde it sweete, it is a signe of riche grounde, by bitter, a great token of barren grounde, by is the taste, it is to be shunned, and not to be vsed vppon the doungehill: but must remember also, that ground wyll some times change, and of fruitefull become barren, whiche hath been seene, and Signes of the good-nesse of the ground.

Grounde wyl change.

is presently, in the olde time in Thessaly, and in our time, in sundry places of our Countrey. Beside, one kind of ground, though it be neuer so fertill, wyll not beare all thinges, as the Poete wylleth vs to know. Neither the ground for euery Croppe. Moreouer, the disposition of the Heauens is a great matter, all Countreys hauing not the weather and ayre alike: wherefore it is the parte of a good husbande to knowe the nature and propertie of his ground, and to

The disposition of the heauens to be obserued.

vnderstande the disposition of it for euery peece of the yeere she muste also consider what Croppe is best for euery layer. Some ground serueth for Corne, some for Vines, some for Oliues, some for Woodwarde, some for Pasture, neither may all thinges well be sowen in riche grounde, nor nothing in barren ground. Suche thinges as neede not muche mayneture, and bide, sowe in lodgie ground, as the great Clouer, Spergie, Chich, and the other pulses that are pulled and not cut. Those that require more fatte ground, are sowen in richer ground, as Pease beanes, Wheate, Rye, Barley, Linseede. Some of them doo good to the grounde the yeere following, as Lupines that are sayd to be sowen for the bettering of the grounde. There is difference also to be put betweene fruites for pleasure, and such as be for profite: as fruite trees and flowres, and suche thinges as yelde both pleasure and sustenance, and are also profitable to the grounde. You must choose for Willowes, Osyers, and Reedes, a wette and a marrish grounde and contrary where you wyll haue Come & Pulse, that delighte in drye ground, Sperage & such like, muste be sowen in shadowie places, and other ground for Quickesets, Timber, Pale, & Kennel rayle such ground as is very grauely and barren, hath this vse, where you may plant Birche & fuche like, and waterie grounde where you may set Alders, Broome, and Bullrushes.

ICONO. Surely the temperature of the ayre, doeth very muche in the fruitefulnesse of the grounde, for I haue oftentimes marueiled, what one kinde of ground is more fruiteful in one Countrey, then in an other.

CONO. In Vineset, the Grauell grounde beares Oliues best, where as about Granado, they require the richest ground that may be, & there in other places the Vine doeth not prosper very well, in stonie grounds, about the Rhine the very copped rockes doo yelde an fruiteful Vines as may be seene. And doeth witnesse, that in some places the Vines do growe euen in the Fermes and Pauing, suche a secrete force is there in Nature. About Candie in Nanny about the Rodes, it is saide there is a speece of ground so fruiteful, that they mowe their Barley being sowen in the season, and then Croppe doo eate the ayne, and gather it with the eares very great. The Alpes increase the fruite of their lande

lande ἄνεργον καὶ ἀνήροτον vntylled and vnsowen, and beyng once sowen, it yeeldeth his Croppe three yeeres togeather. Homer calleth Phrigea ἀμπελοέσσαν, and Argos πολύπυρον. Herodotus writeth, that Babylon is so fruitefull, as the grounde yeeldeth encrease two hundred and three hundred folde. Plinie affyrmeth, the encrease in his time to be fiftie, and to good hit bandes an hundred folde. About Monte Gibello, it is reported by credible persons, to be an hundred folde. Italy is so fruitefull, that Varro calleth it the Garden of the worlde, because it is so fertill and well planted in euery place: Campania, being full of Corne: Apulia, plenteous with Wine: and Venafri, aboundyng with oyle. Italy, the garden of the worlde.

RIGO. I haue heard say, that Germanie and Fraunce haue not been in times past very fertyll, and that they haue been altogeather without Vines, and nowe we see no Countrey more fruitefull, that yeeldeth greater aboundance of all thinges. Where can you finde better wines, then about Bauaer and the Rhine? I speake not of their great store of Grayne, Mines of Golde, Silver, Iron, and Leade. In the Countrey of Thuryn in Germanie, it is sayde, that after Wheate once sowen, the ground wyll yeelde Rye of it selfe two yeeres togeather. The fruitefulnesse of Germanie.

CONO. Yea, and in our Countrey here, we haue ground that wyll beare Wheate euery yeere. Rape seede being once sowen, hath bene knowen often yeelde his Crop two yeeres togeather, without sowyng or labouring.

RIGO. Vnder the Northen Pole it is reported the grounde is so fertyll, as they sowe in the Morning, and reape at Noone. In Barbarye, where the grounde is lowe, they plant vnder the Date tree the Olyue, vnder the Olyue the Figge tree, vnder the Figge the Pomegraunte, vnder it the Vine, vnder the Vine they sowe Wheate, and vnder Wheate Pulse, all prospering one vnder the others shadowe, and yeelding their fruite the same yeere. The fruitefulnesse of Barbary.

CONO. That made me to say, that the grounde folowes the disposition of the Heauens.

RIGO. But syth in all places the ground is not of lyke goodnesse, but that we chaunce vppon a leane and a barren ground, as Sandy, Stubby, & Grauelly ground: may these be made fruitefull, and mended by arte?

CONO. Very well, there is no Countrey that the moſt gra-
cious Lorde hath left without ſufficient yeelde, yf labour and tra-
uayle bee not refuſed.

RIGO. That I will I would gladly vnderſtand.

Of doung-ing of grould

CONO. It is brought to paſſe diuers wayes, principally by dounging and diligent labour: and to this end ſerue thoſe heapes of doung that I lately ſhewed you.

RIGO. I pray you let me knowe what doung dooth moſt enriche the ground.

The ſortes of doung.

CONO. Varro, and Columella his followers, appoynt three ſortes of dounges: the fyrſt of Poultrie, the next of Men, the thirde of Cattell. Of the fyrſt ſort, the beſt is that whiche is had out of Douehouſes, the next is of Pullayne, and al other foule, except Geeſe and Duckes, which is hurtfull. The people in the old age had ſuch ſtore of Poultrie and Foule, as the doung of them ſuffi-ced for the manuring of theyr ground. The next to this, is mans ordure, if it be mixed with other rubbiſhe of the houſe: for of it ſelfe it is to hot, and burnes the grounde. Wans vrine beyng fyue monethes kept, and powred vppon the rootes of Appple trees and Vines, bringeth great fruitefulneſſe to the trees, and geueth a pleaſant taſte to the fruite. In the thirde place is the doung of Cattell, whereof the beſt is the doung of Aſſes, becauſe this beaſt dooth chawe with moſt leyſure, whereby his meate being wel di-geſted, is made the profitabler doung. Next to this, is the doung of Sheepe, next of Geates, then of Oxen, and Horſes: the woorſt of all of Swyne, very hurtfull to Corne, but vſed in ſome places for Gardens, for lacke of other doung, but is a great breeder of vnpleaſant weedes: yet Plinie ſeemeth to allowe it, as the fylth of a filthy creature. The doung of Horſes likewyſe, where the Hor-ſes are feede with Barley, dooth breede great ſtore of weedes. The Lupine before he beare his Coddes, is moſt commended, be-ing turned vp with the Plowe or Mattocke, and layd in bundels about the rootes of Trees or Vines. Where they haue no ſtore of Cattel, they vſe to mende their ground with Straw and Ferne, and with the ſtalkes of Lupines, and the braunches layde toge-ther in ſome Ditch: hereunto you may caſt Aſhes, the fylth of Swyckes and Pryuies, and ſtrawe, with muſt and other thinges

Vryne.

raked

raked togeather; but in the middell, you muſt lay ſome ſoundе matter againſt the breeding of Adders and Snakes: alſo Humlockes, Walwoort, and the weedes growyng about Wyllowe trees and Ferne, with other ſuch rotten weedes you may geather and lay vnder your Sheepe. They that dwell in Grauelie and Heathie groundes, doo take the Turues of the Earth and the Heeth, & laying them in heapes powdred with a litle doung, ſuffer them to lye & rotte, and after lay it vpon barren ground, but ſpecially where they keepe great ſtore of Sheepe, they caſt into their Foldes ſuche Turues pared from the grounde. Columella tountes them but eupll hulf bandes, that haue of euery one of the leſſer kind of cattell leſſe then a cart lode of doung in 300. dayes, and of eache of the greater ſort tenne loade, beſide the fylth and dirt of the yarde. This is alſo to be noted, that the doung that hath lyen a yeere is beſt for Corne, for it both is of ſufficient ſtrength, and breedeth leſſe weedes: but vppon Meddowe and Paſture, you muſt lay the newell, becauſe it bringes moſt graſſe, and this muſt be doone in Februarie, the Moone encreaſing, for this is the beſt time to cauſe encreaſe of graſſe. In the manuring of your ground, looke that you lay moſt doung vpon the toppe of the Hill, for the rayne wyll beare it to the lower partes faſt yenough. He that mindes to haue his grounde beare Corne, yf he meane to ſowe in the ende of Sommer, muſt turne in his doung in September: yf in the ſpring, he may lay it on at any time all the Winter. What time ſo euer it be doone, you muſt looke that the winde be Weſterly, and the Moone in the wane. This obſeruation helpeth greatly to the bettering of the grounde. Beſyde, you muſt not forget to let the doung be drye before it be layd vpon the ground. For though Columella doo bidde the contrary, our owne experience wylles vs not to folowe him: for doung whyle it is moyſt, dooth more harme to the ground then good, as dayly experience teacheth. Nowe as your lande wyll waxe colde, yf it be not dounged, ſo wil it be dryed or burnt, if it be manured yeere by yeere, or to much. The watrie ground requireth more ſtore of doung, then the drye ground the leſſe.

Olde doung beſt for Corne, and newe doung for Meddowe.

The obſeruing of the VVinde and the Moone, in mending of the ground

VVet doung hurtes the ſeelde.

RIGO. I remember I haue yet this ſeene Earth taken out of the Feelds neere adioyning, and layde vppon the lande, I

therefore gelte, the earth may be mended with earth.

CONO. The Germanes, beſydes ſundry other ſortes of enriching of their groundes, doo in ſteade of doung, caſt vppon it a kinde of pitch and fatnelle of the earth: (Plinie countes it to be fyrſt deuiſed in Englande and Fraunce) called Marga, as it were the facte of the Earth: but I rather thinke it to be the inuention of the Germanes, with whom yet both the name and the vſe is retayned: it is gotten in deepe pittes, but not alike in all ſoyles. That part of Fraunce that lyes vpon the Maaſe, dooth ſhewe a ſandy kinde of Marle, differing from the facte Marle of Germanie, but of the ſame qualitie: whiche caried vppon the Sea in veſſels, is ſold as a great marchandize. In ſome places the ſkowring of Pondes and Ditches is vſed, to the great enriching of the grounde, in the mountaynie and barren groundes. In ſome Countreys they make their land very fruiteſull with laying on of Chalke, as Plinie teſtifyeth of the Burgundians, and the Galloynes. And in Germanie in our dayes, this maner of mendyng of ground is common. But long vſe of it, in the ende bringes the grounde to be ſtarke nought, whereby the common people haue a ſpeache, that ground enriched with Chalke, makes a riche father, and a beggerly ſonne. A litle lower, not farre from the Maaſe, in the Countrey of Lyege, they mende their lande with a kinde of ſlate ſtone, which caſt vpon the ground dooth mooloer away, and makes the grounde fatter. In Lombardie they lyke ſo well the vſe of aſhes, as they eſteeme it farre aboue any doung, thinking doung not meete to be vſed for the vnholſomeneſſe therof. Columella writeth, that his Uncle was woont to mende ſandy and grauely groundes with Chalke, and chalkie & hard grounds with grauell and ſande, whereby he had alwayes goodly Corne. So doo I thinke, that Riuerlande by ouerflowynges, and fatt ground with madde mingled with ſande and grauell, wyll be made muche better.

Marle, a fat kinde of earth vſed commonly at this day in diuers partes of Suſſex and Kent, for the enriching of lande.

Chalke vſed for mending of ground.

Dounging with aſhes.

RIGO. You haue taught me ſundry wayes of mendyng of ground, I would gladly nowe learne the ryght way of plowyng and ſowyng.

The maner of plowing.

CONO. In plowyng and orderly preparing grounde for ſeede, conſiſtes the cheefeſt poynt of huſbandry. Cato affyrmeth

the

the fyrſt point of huſbandry, to be to prepare the grounde well, the ſeconde, to plowe it well, and the thirde, to doung it well. Of plowing and turnyng vp the grounde, the faſhion is diuers, according to the nature of euery ſoyle & countrey. All great feeldes are tylled with the Plowe and the Share; the leſſer wit the Spade. The Plowes are of ſundry faſhions, according to the diuerſitie of Countreys, ſome ſingle, ſome double, ſome with wheeles, ſome without. The partes of the Plowe, are the Tayle, the Shelfe, the Beame, the Foote, the Coulter, the Share, the Wheeles, and the Staffe. The Share, is that which fyrſt cuttes the way for the Coulter, that afterwards turnes vp the Furrowe. Where the ground is light, they vſe only a ſmall Share. In Ireland they haue for their Plowe nothing but a Forke. In Syria, where they can not gote very deepe, they vſe (as Theophraſtus writes) very little Plowes. Plinie writeth, that wheeles for Plowes were deuiſed by the Frenchemen, and called Plugrat, a Germaine name, which corruptly is printed Planarati. In diuers places where the grounde is ſtiffe, they haue a litle wyng on the ryght ſyde of the Coulter, whither the dryng is to be remooued to whiche ſyde you liſt: with the Roode or Staffe well poyſed, the plowman maketh pleaine his Coulter. When you wooike, your Oxen muſt be yoked euen together, that they may drawe more handſomely with heades at libertie, and leſſe hurt to their neckes. This kinde of yoking is better liked of many, then to be yoked by the hornes: for the Cattell ſhalbe able to drawe better with the necke and the breſt, then they ſhall with their heades: and this way they put to the force of their whole bodyes, whereas the other way (being reſtrayned by the yoke on their heads) they are ſo greeued, as they ſcarſely race the vpper part of the earth. Where Horſes may be vſed, their vſe is more commodious for the Plowe, and the feuer of them the better: for many Oxen drawe too haſtily, and make too large Furrowes, which is not good: whereby we ſee the grounde to be excellently well plowed in Gelderland, and about Colayne, where they plowe all yeares with two Horſes, going very ſoftly. In Fraunce and other places, where they plowe with Oxen, they make their Furrowes rather deepe then hyghe. Where the ground is ſtiffe, the Coulter

The partes of the plowe.

This drawing with the head, is vſed in the vpper partes of Fraunce and Spayne.

The like is vſed with vs in Norfolke, and Lincolnſhyre.

muſt be the greater and the ſtronger, that it may goe the deepeſt for yf the cruſt of the earth be turned vp very brode, it remayneth ſtill hole, whereby neither the weedes are killed, nor the ground can be well harrowed. The Furrowe ought not to exceede one hundred and twentie foote in length, for yf it woo, as Columella ſayth, it is hurtfull to the beaſtes, becauſe they are to muche wearied withall: but this rule, where the feeldes are large, is not in many places regarded, as in the Countrey of Gulicke, where the feeldes are great, their Furrowes are drawen very long. You muſt not plowe in wette weather, nor wette ground, nor when after a long drouthe a little rayne falling, hath but wette the vtter part, and not gone deepe. If it be too wette when it is plowed, it doth no good that yeere. You muſt therefore haue a regard to the temperature of your ſeaſon, that it be neither to dry, nor to wette: for, too muche moyſture maketh it to durtie, and too great dryneſſe maketh that it will neuer worke well: for eyther the hardneſſe of the Earth reſiſteth the Plowe, or yf it doo enter, it breakes it not ſmall enough, but turneth vp great flakes, hurtful to the next plowing. For though the land be as riche as may be, yet yf you goe any deapth, you ſhall haue it barren, which is turned vp in theſe great cloddes, whereby it happeneth that the bad moulde, mixed with the good, peeldeth the worſter Croppe. Where you haue plowed in a dry ſeaſon, it is good to haue ſome moyſture in your ſecond ſtirring, whiche moiſtning the grounde, ſhall make your labour the lighter. Where the grounde is riche, and hath long hayne water, it is to be ſtirred againe when the weather waxeth warme, and when the weedes are full growen, and haue their ſeedes in their toppe, whiche being plowed ſo thicke, as you can ſcarſe ſee where the Coulter hath gone, vtterly killeth and deſtroyeth the weedes: beſides, through many ſtirringes, your Fallowe is brought to ſo fine a moulde, as it ſhall needs very little or no harrowing at all when you ſowe it: for the old Romanes, as Columella wytneſſeth, would ſay that the ground was yll huſbanded, that after ſowing had needs of the Harrowe. Moreouer, the good huſband muſt trie whether it be wel plowed or no, and not onely truſt your eyes, which (the Balkes being couered with mould) may eaſely be deceyued, but trie it with your

Dead mould

hand

hand (which is a certaine proofe by diuerting the sonne a good Furrowe, which if it pearce alike in euery place, it shewe-
eth that the ground is wel plowed. If it be shallowe in one place, and deepe in an other, it declares the grounde to be euill handled in the plowing. If you are to plowe vpon a hill, you muste plowe ouerthwart, and not vp and downe: for therby the increase of the fleyenesse is met with, and the labour of both man and Cattell is lightened: but herein you muste beware, that you plowe not alwayes one way, but sometime higher, sometime lower, lookyng a slope, as you shall see cause. Touching the season of your plowing, it muste be chiefely in the Spring, as the poete well teacheth. When as the pleasaunt spring, all fresh and louely doth ground & toward and chearefull, and mildnesse of fowle & beastes bee in the Spring the ground being mellowe, is easily wrought, and the weedes are then best rooted in, which doth good for the enriching of the grounde, if plucked vp by the rootes before they haue seeded, yea euen in Spring agayne. And therefore with vs, we vse to begin to plowe about the middest of March: but in sandy and light grounde, they vse to plowe in the middest of Winter, yf the season will suffer. These haue opinion, that stiffe ground also should then be stirred. A fleudar and leuell ground, subiect to the water, would be fyrst plowed in the ende of August, and turned againe in September, and prepared for sowyng about the twelfth of March. The light hilly ground is ewe to be broken vp in Sommer, but about the Kalendes of September: for yf it be broken vp alowe, being barren and without juyce, it is burnt vp with the Sunne, and hath no goodnesse remayning in it. A fatte ground, some would haue broken vp after the Ides of Iuly, which being plowed at that time, should lye open a fortnight about the tenth of June, and after againe, about the Kalendes of September, according to Columella's minde. But these thyngs are (I killall) in vse barely agreed, that after the tenth of June, without great store of rayne, you shall not plowe: for yf the yeare be drye, there is nothing to the contrary but you may plowe in the meane time, betweene these two seasons aforesayd. Now I plowe in the night, yf it be

Tryall of good plowing.

The plowing of a hill.

The best time of plowing.

Plowyng in the nyght.

GONO. Yea very well, in Sommer time and in hote Countreys you may begin in the Euening, and continue til the Sunne ryse, that the moisture and fatnesse of the grounde, may remayne shadowed vnder the Clodde: and that the Cattell through ouermuch heate of the Sunne, be not diseased nor hurt. Howe ofte you shall plowe the ground that you meane to sowe, partly the nature of the soyle, and partly ỳ condition of the seede wyl teache you, as when we come to it. I wyl tel you: for it is not needeful to stirre a greuelly and a light ground, so often as the stiffe ground: yet we finde that land, the ofter it is stirred, the better it beares. So that for some seede, you must not only tumfallowe & threefallowe your ground, but also fourefallow it, as they vse in the fruitefullest places of Italy and Germanie. In Misnia and Austria, they plowe but twyse. Stiffe ground, as they commonly doo in Italy, is best to be sowed vpon the fifth stirring, in Tuscan, vpon the nienth. Thus hath euery Countrey both in this, and other matters, his fashion, according to the nature of the grounde.

RIGO. Then may I not sowe one peece of grounde euery yeere without resting?

GONO. There are some groundes you may sowe yeerely, as in Italy and Austria, and likewyse in some partes here about the Riuer, that are fruiteful eyther by nature, or by ouerflowyng. In other places you must obserue the olde saying of the husbande, Take not too muche of your grounde. Virgil would haue grounde rested euery other yeere: which, if you haue store of ground, out of al doubt is best. Hereof hath the ground, that is sowed euery yeere, his name in the olde tyme: but commonly euen the best grounde requireth rest the third, the fourth, or (at ỳ farthest) the fifth yeere. Varro writeth, that in Olynthia the lande beareth euery yeere, and euery thirde yeere most plentifully. But yf you wyl doo well, you must let it lye euery other yeere, according to the nature of the soyle, or els sowe it with lighter seede, that soketh out lesse the substance of the ground, as Lupines and others, that we wyl shortly entreate of. It is also muche to be considered, whether the ground that you plowe be layd ground yeerely sowen, or fallowe. If you breake vp newe ground, yf it be riche, beauie, and prepared for seede, it sufficeth to plowe it once, and to sowe it immediatly,

Diuers Latine wvoords belong to hvsbandry, interpreted.

Agri Voca.

ſpoken vp in the Spring, willing the ſeaſon of the time, wherby
ῥᾴδιος, ῥεμβὸν ῥαστώνη, may be interpreted by the name of
Nouale, or Nouale. The Fallow is ſaide to be plained, as he ſtir-
red with the Plough when it is turned vp. πολλὰς ἀροῦσι λέγουσι
ἔλαφοι πολλὴν θέρεος δὲ ῥεμβὸν οὐ σε ἀποπνεῖ, it is ſpoken vp when
it is firſt plained lying in great Clodds: the ſeconde plaining is
called Offingere Agrum, & Iterare, to plowe againe, ἀνάπολιν Teren-
me to thyſtallane it. Ager iteratus, and iteratus, be vſuall wordes
with Columella and Plinie. Nouare, is to chaunge the grounde well
ſat tamed before, and to plowe it and prepare vnto the ſetting
ſeaſon. Occare, to harrowe it, as Varro ſayth, is ſo to breake it, as
there remaine no Clodde. The harrowe is an inſtrument croſſe
lerused, to breake the Clodds withall, and to couer the ſeedes.
Crates, is likewiſe vſed in the ſame ſignification. Arare, is when
that which is ſowen and come to ſome growth, is turned in with
the Plowe. Plinie calleth Arare, as it were Sarrire, to plow often
that which is ſowen. Sarrire, is to purge with the Rake. Runcare, is
to weede out of the grounde noiſome weedes, for whiche is alſo
vſed Sarrire, and ſarculare, and of Columella, Exherbare. Palmites,
and Repalmare, is to digge about the Vines. Palmum, is a forked
inſtrument vſed in planting of Vines. Lirare, and Occare, are al
moſt one, where we plowe, ſo as we leaue betwixt two Furs
rowes a Ridge, for the due keeping of the graine like a Garden
bedde. And hereof is that ſpare called Lira a Ridge, whiche the
huſbandmen call Porca, becauſe the place being vayled hye, be-
ſendeth the Corne from the water, & Lira Hortenſis, a bed in a Gar-
den. Scamnum, a Balke, is the groſſe earth that hath eſcaped the
Plowe. Plinie wylleth, that there be no Balkes made, nor great
Clodds remayning, meaning the great Turfe that is turned vp
at the firſt plowing. Scamnatus Ager, is called of Vibius Virius, that
lande which runneth all in length from Weſt to Eaſt, whiche yet
it be more of length then breadth, and lyeth vpon the North, is
called Scamnatus. The lande ſelfe is alſo called groſſe and raue, that
is not well manured, whiche hath neede to be ſeaſoned with the
heate of the Sommer, and the colde of Winter, and to be plowed
in the Spring. It is alſo called riche, fruteſull, fertyll, and that
which is nought and peeldes no his fruite, is called leane, barren,

hungry,

hungry, be in poulse, and rotten. Also salt, bitter, sourishe, where the water still continues: wette, that some time lyes upon the ground, that is burnt with the sonne, rotten and mullie. This all is called pleasaunt ground, sweete, blacke, rotten, and mellowe, which are the signes of good ground: but hereof I thinke I have sayde sufficiently.

CRIGO. That you may continue your speache, I pray you goe to your former matter agayne.

EGNO. When you have broken up your ground, yf it be Nastie as I sayde, and not tylled before, you may sowe it presently, and harrowe it, and yf neede be, take it. The ground that is peerelesse, & that hath lyne spare is to be plashed the yeere, according to the nature of the soyle, and the seede that you meane to sowe.

CRIGO. Mowe you have tolde me howe to quyet my lande for seede, I pray you let me understande the sortes of seede, and in what soyle they must be sowen.

EGNO. That must I do. The seede that commeth of that whiche the Latines call Fruges, as pulse, corne, and herbe that we call Fruges, all sortes of harvest graynes, which the Germanes call yrbe and apis, because they are gendered in their bowelles and theire openelle. Iulian the Lawyer, calleth Fruges all thinges wherewith a man is fedde. The auncient writers doo understande fruges largely, for all the fruites of the earth. Plinie besides it into sundrie kindes, into Corne that groweth on Eares, as Galen the Lawyer defines it: the other that cometh Codded, as all kindes of Pulse, or pesshare. Of the first kinde, is Wheate, Rye, Barley, Beggs, Otes, Beechewheate, or Buche, & if you will in Sussex Dorne, Ryse, & Lenten Wheate, though all kindes growe not in all places, nor bouse in every place all one nature. In some places you have not Lenten Wheate, therefore have instede of Bigge. In other places they sowe either Otes or Buche. Of the kindes of Pulse are these, Beanes, Pease, Lintles, Chiches, Tares, Lintels, Lupines, and suche lyke. Now though there be sundry sortes of seede, and every Countrey hath his owne, yet sowe such as best agrees with their nature. Olde seede not to be sowen. Of seede & their diuersitie.

And

eyther kynde, change their nature: as the seede of Colworte, if that being sowen turneth to Rapes, and Rape seede likewyse into Colwortes. The seede of the fyrst yeere is best, of two yeere olde worse, and of three, worst of all: the rootes barren and naught. The dull seede also is ther, which is waighty, and lyeth in the bottome, and such as is dull, and being bytten betwyx the teeth, is not fatte, but is withered: and chaffe in the eare, is to be throwen away. There is also another necessarie note, to have the seede from strange grounde, & from the worse to the better, and not the contrary, not from colde Countreys into hotte, nor from the fat grounde to the leane, and to beware that it be not bitten with Mothes, Mise, or Ants: and to prepare the better, sprinckle them before they be sowen, with the juice of Houseleeke. If you mingle with your graynes the seede of Beanes, and sowe it about your grounde, you shal saue it from the annoyance of Birdes.

The order of sowyng.

You must sowe your Ridges with an equall hande, and all alike in every place, letting your foote (specially the right foote) to your hande go together. Wheate, Rye, Barly, Otes, and other, chefely such as beare Coddes, as Milium, and Panicum, must be sowen with a full hande, but Rape seede only with three fingers.

RIGO. A man must vse his hande I perceaue, as the Harper dooth, to make it perfite.

CORNO. He must so doe: And as he put more water to strong wine then to weake, so must he sowe more seede in the stronger ground, and lesse in the weake: the stronger soyle requires the stronger seede, so fatte grounde may beare muche seede, and barrein with lesse: neither can it be certainely appointed, howe muche seede is generally to be cast vppon an acre: though I knowe the olde writers appointed certayne quantitie to every acre, whiche perhaps might serue with them: but we should soone decease our Tenants, if we should obserue that rule in every place. Firste, because fatte grounde requireth more seede then other, as the grounde is of stifferesse or lightnesse: so the stiffer grounde (as in Hollande neere the Rhyne) requires muche seede, where lighter grounde requireth lesse. The finely sowing the thinner, and the lower, as Columella saith, the thicker. Secondly, after the measures and acres differ, as the thing that is vsed to

not throughly agreed vpon. But nowe you shall heare what seede euery ground requireth.

TRIGO. That I long to heare.

CONO. After long rest, or the fyrst dounging, eyther Barley or Wheate is to be sowen: but Wheate, though it require good ground, yet yf the ground be to riche where it is sowen, it wyll growe to ranke, and lye leadge vpon the grounde. And therefore vppon suche grounde, it is best to sowe your Wheate after a crop of Barley, Peaſe, or Buck, and after your Wheate crop, to sowe it with Rye: and then againe (yf the grounde ware not poore) with Barley. In very riche grounde, immediately after the geathering of Rape seede, plowe it presently for Bucke, whereby you may haue two Croppes in one yeere. Lykewise maner the Cabeggred Rape sowen after Rye, maketh two harueſtes in one yeere. Peaſe, Beanes, Tares, and Fitches, and almost all Pulſe els, requireth riche grounds, which afterwardes may peerely serue for Wheate, Milium, and Rape. Plinie woulde not haue Rapes sowen, but in very well dunged ground: but we finde by experience, that after a croppe of Rye in meane ground, you shall haue the same yeere great Rapes. Sandy and Grauelly ground, muſt rest euery third yeere, for two or three yeeres, that being then well dounged, you may sowe Rye, or Buck, and after Oates. In good pasture ground newe broken vp, you may sowe Oates after the fyrst plowing, after that, Rape seede, then Barley, after that Wheate, or Rye, and at last Oates, or Rye, yf the nature of the countrey be for it. When this is doone, you muſt eyther doung it, or let it lye laye. If the ground be mellowe, after Barley in some places they sowe Millet, then Radiſhe, after that Barley, and Wheate, as in Campania: and such ground is sufficiently plowed, when it is sowen in some place where Lenten Wheate is sowen, it rekes three monethes, & after is sowen with Beanes in the Spring, in no other wyse may you charge indifferent ground. If after two seasons of Corne, you sowe Pulſe or Pedware, the barremer ground muſt rest three yeeres. Some wyl in no caſe haue you sowe Wheate, or Barley, in ground that lyes fallowe. After that ye haue thus sowen your seede in ground well plowed and well prepared, then muſt you straight waye Harrowing

harrowe it, which is doone with a lettuse instrument full of teeth drawen vpon the ground, whereby the Cloddes are broken, and the seede couered: in some places it is doone with a hooke type to the Plowe, whiche they call in Latine Lirare. Sometime Raking is needefull, whiche in the Spring, looseth the earth made clunged with the cold of Winter, & letteth in the freshe warmth. It is best to rake Wheate, Barley, and Beanes, twyse. Moreouer, they breake a sunder with the Rouler the greater and stiffer Clods. Weeding is when the Corne is knotted, the naughtie weedes being plucked vp, deliuereth the rootes of the Corne, and seuereth it. To speake of the season of Sowyng, it is agreed vpon of all men, that there ought to be no sowing in Winter, for the Winter Corne when it is sowed before Winter, appeareth aboue the ground somtimes within a seuennight after, which yf it be sowed after Winter is begunne, it scarsely appeareth in fourtie dayes after. Some very fondly thinke it better to sowe in the Spring, then in Autumne. Plinie writeth, that in Tdeuers the Haruest being in, they haue sowed in the coldest of Winter, and raking their grounde in the spring, haue had an excellent good Croppe after. Amongst our haruest seedes, there are some harder that are able to abide the Winter, which are sowen in hot Countreys, as Virgil sayth, about the setting of the seuen starres, which Columella vnderstandeth to be about one and thirtie dayes after the Autumne Æquinoctial, that is, the nienth Kalendes of Nouember, and in Fraunce and Germanie in September, and the beginning of October, as Rape seede, Wheate, Rye, Winter Barley, that are nourished in the blade all Winter, and grow vp towardes eating in the Spring. Some there be that will put to sowe before, only in drye ground and hotte Countreys. Some agayne would haue you sowe in colde Countreys after the Autumnē Æquinoctial, in hotte Countreys later, least they should florishe before the Winter, and be destroyed of wormes, or blasted. Some on the other side make haste, saying, That soone sowing sometimes deceaues, but late sowing, euer. It is good reason to sowe timely in wette groundes, that the seede rotte not with ouer muche moysture, and later in drye groundes, least lying long and not sprowting, it come to nought. Also, in timely sowyng, to sowe thicker,

Raking.

Rouling.

The tyme for sowing.

Late sowing alwayes fayleth.

thicker, because it is slowe in rooting, and in later sowyng, shall-
ner, least with the thicknesse it be choked. Sommer seedes,
which are sowed before the risyng of the seuen starres, and in the Sommer
Spring, as Beanes, Pease, and suche, Pulse, Millet, Panicum, graine.
Sesamum, Sommer Barley, Flaxe, Hempe, Oates, Buck-
Sporia, and suche other, are sowed in the Spring time. In Asia
and Grece they sowe all as they say, at the setting of the seuen
starres. Now, although there be certaine precepts of the tyme of
sowing, and howe muche seede is meete for euery quantitie of
grounde: surely, they might as I haue saide before, for theyr
owne Countrey and nature of their ground, geue a kind of gesse:
but to determine any thing herein certainely, there is no man
that can doo it, but the ground and euery mans owne practise is
herein the best maister. One auncient generall rule of husbandry A generall
there is, wherein we are warned in cold Countreys to sowe late, rule.
in temperate Countreyes sooner, and in hot regions soonest of al.
Eratosthenes sayth, that India is subiect to muche raynes in Som-
mer, and that then they sowe Flaxe, Sesamum, Rysle, and Mil-
let: and in Winter, Wheate, Barley, Pedware, and other
fruites that we haue not. Hesiodus, the Prince in his time of hus-
bandry, wylls vs to sowe accordyng to the custome of Grece, his
naturall countrey. Virgil, Cato, Varro, Columella, and Plinie, appoint
their rules for Italy, whose mindes yf you wyll haue folowed in
all other places, you shall but seeke to couer euery pot with one
couer. But to come to the matter, sythe the seedes of sundry na-
tures, require sundry times of sowyng, and diuers sortes of ordr-
ring, and that herein euery Countrey hath his guise, I wyll
here (obseruing suche customes as are most generall to them all)
seuerally shewe you of euery seede by him selfe, and so declare vn-
to you the order of their sowyng. And fyrst, amongest all the VVheate.
fruites and grayne that the Earth dooth yeeld for our sustenance,
the cheefest place is rightly geuen vnto Wheate, called in Greke
πυρός, in Italian Grano, in Spanishe Trigo, in Dutch VVeyt, in
Frenche Fourment, as a grayne most needefull for man, and there-
fore most fruitefull, because God hath ordayned it to nourishe
man withall. It is wonderfull what yeeld it hath been of in
some Countreys. Augustus his deputie sent hym from Sicaice in A-

eare, of one graynę of Wheate foure hundred braunches. And Plinie witnesseth, that in the same place, one bushel hath yeelded a hundred and fyftie bushels.

RIGO. There are that holde opinion, that this which the common people call Wheate, the Germanes VVeyss, and the Hollanders Terue, is not the true Wheate, but a kinde of Rye, and that the true Wheate whiche the Italians call Grano, groweth onely in Italy and in Spayne.

CONO. That whiche growes in Italy and Cicil at this day, differeth not from ours in fashion, colour, nor flowre, though the graynę there be somewhat great, and the flowre more clammey, whiche maketh it that it can not be long kept, specially about Rome. And whereas our Wheate is eyther bearded or pollarde, theirs is altogeather pold: we call it pold or pollard, that hath no Aanes vpon the eares. And that we call ỳ Aane, which groweth out of the eare like a long pricke or a darte, whereby the eare is defended from the daunger of Birdes. With Virgil the Aane is vsed for the Cornę, as the parke for ỳ Wheate. Gluma is the huske of the Cornę whose top is the Aane. Frit is the small graynes lesser then the cornę that growes in the top of the ripe eare. To returne to the Wheate, I graunt there are some that doubt of this Wheate of ours, suche hath been the iniurie of the tyme (as all thinges almost forgotten) we scarsely knowe howe to name the foode that we daply feede of. For my part, I wyl followe common vse as a maistresse in speache. The olde writers haue written of sundry sortes of Wheate, whereof they haue thought that most needefull to be sowen, whiche they called Robus, as the fayrest and wayghtiest. The second called Siligo, they vsed in their fynest Cheate. The thirde, they called Trimestre, because it would be ripe in three monethes after the sowing. Though Columella allowe no suche kinde, yet was it most auncient with the Grekes, and called Trimenon, growyng onely in the colde countreys. In Thracia they haue a kinde that is ripe in two monethes, and is couered with a number of huskes, against the extreme colde of the Countrey. In our Countreys also we haue Wheate and Rye, that we sowe with our Sommer graynę, as we likewyse doo Rape seede, but to no great commoditities for the Winter seemes

and farre excede them, and being nourished in the earth al Winter, they proone, as Theophrastus sayth, of more substance and prosper. Amongest all these sortes Plinie recounteth the Wheate of Italy to be the best, both for beautie and weyght. We vse with vs only two sortes, differing in this, that the one hath smoothe eares without any beardes, the other with long beardes or Ianes, very ruffe and sharpe, not much vnlike to Winter Barley: in al other properties they are both alike. It is sowen in September, the season being fayre, the grounde thryse plowed and well raked or harrowed, although you may sowe it very well after once plowing vpon grounde where Peale, Tares, or Buck hath been newly had of, in a good soyle. Plinie and Columella woulde haue you sowe of Wheate and Rye, fyue bushels vpon an acre: but as I haue saide before, this measure is to be measured by reason. We at this day sowe not so much Wheate vpon an acre as Rye, nor so much Rye as Barley. If it is best, yf the Winter be like to be colde, to sowe the sooner: yf warme, the later. Wheate delighteth in a leuell, riche, warme, and a drye ground: a shaddowy, weedy, and a hilly ground, it loueth not, though Plinie say the hil yeeldeth harder Wheate, but no great store. After it is sowen, it putteth out a great company of small rootes, and appeareth at the fyrst wy or blade: it hath sundry stalkes, but suche as can not branche all the Winter, as other Winter Corne is, it is nourished in blade: when the Spring drayweth on, it beginneth to spindle: vpon the thirde or fourth ioynt thereof, commeth out the eare, which fyrst appeareth enclosed in the blade, it flowreth the fourth or fyfth day after: yf it growe to rancke at the fyrst, it is eaten downe with cattel, or in some place mowed: it is after weeded, it flowres about ỳ tenth of Iune, sooner or later, as the yeere falles out, euen at one time almost with ỳ Vine, two noble floures with comfortable sauour flourishing at once. Varro affyrmeth, that the Wheate lyeth fyfteene dayes in the blade, flourisheth fyfteene, and ripeth fyfteene: after it hath flowred it waxeth greater, and as Theophrastus sayth, is within fourtie dayes after ful ripe, where with the latest they reape in the eyght moneth. Other say in fyue and thirtie dayes, ỳ reaped in the nienth moneth. It neuer eares, tyll al his ioyntes or knottes be growen. There are foure ioints

The tyme for Wheate sowyng.

in Wheate, as Plinie sayth, and eyght in Barley. But in our coun-
trey and our dayes, both Wheate, Rye, Barley, and Otes, haue
but fowre, and that not alwayes. Before the commyng of ryse
coynes, there is no appearyng of the eare: whiche when it com-
meth, beginneth to flowre within fowre or fyue dayes, and so
many, or little more, it fadeth. When the flowre is gone, the graynes
begins to suck, and in fowre or fyue dayes after ripe. The blade
of the Wheate is something like a Sedge, but narrower then
the Barley: the Spyndel, Stalke, or Strawe thereof, is smoo-
ther and gentler, and not so brittle as of Barley. It is cloſed in
many coates. The ſtalke that bereth the eare is heyther then that
of Barley, the eare groweth more vpryght and farther from the
blade, the chaffe is softer, sweeter, and more full of iuyce, the eare
of Wheate is out of order and vneuen, as well of the Pollard as
of the bearded, where as Barley hath his eare of iuſt number
and in perfect order. In Bactria, it is sayde a graine of Wheate is
equall in quantitie to an eare of our Wheate. In Babylon, the
blades both of Wheate and Barley, as Herodotus reporteth, are
foure inches hyghe. Wheate, as Columella wryteth, after the third
sowing chaungeth to Rye, which hath been knowen in Germa-
nie, as I sayde before, in many places. Of Wheate is made Amyl,
the making whereof Cato and Dioſcorides teacheth. After Wheate
we sowe with vs Rye. There are that thinke it to be that whiche
the Greekes call ὄλυρα, though Homer take ὄλυρα for a kinde of
foode for Horſes: some others take it for a kinde of Wheate. He-
rodotus sayth, Bread was made of it. Of Laurentius, it is called Far,
of Gaſa, Siligo. Diuers learned men call it Secale, and take it for Pli-
nies farrago: the Frenchemen cal it Segle, the Dutchemen Rock, the
Italians almoſt as the Latines Segala: the graine is something
blacke, and maketh blackiſh breade. But to paſſe ouer all contro-
uerſies, I folowe the Countrey ſpeache, and take Siligo for our
common Rye whiche is sowed immediatly after Wheate, about
the ende of September, or in the beginning of October, in good
ground: in sandy and grauelly ground, it is sowed in Februarie,
and called Sommer Wheate: it requireth the beſt grounde,
warme, and faſt, and refuſeth not light grounde and grauelly,
ſuit be helped with dounge: it loueth wette grounde as ill as

Wheate,

Wheate, they both require to be sowen in a deepe mouldye and a plaine soyle: but Rye is sowed a litle after Wheate, in the sowyng whereof, you must occupie a thirde part more then of Wheate: it prospereth slightly in any grounde, and many times with the yeeld of a hundred for one. It must be sowed after the third plowing as Wheate & harrowed much after the same sort, the stalke or steale thereof, is smaller then the Wheate stalke, taller, and stronger, his eare hanging downewardes, and therefore more subiect to blasting, because it receiueth and keepeth the water that falles whyle it flowyeth, and suffereth the violence of mystes and frostes: the strawe thereof is gentle and flexible, seruing for Vines and coueringes of houses. Nowe followeth Barley, accounted in the olde generations among the woorthyest sort of grayne, and not of smalle estimation at this day. The Italians call it Beade or Beaue, or Orze: the Spaniards Ceuada: the Dutchmen Gerst: the Frenchemen Orge: the Grecians κριθὴ: and though it be vsed in Greece and Italie, and suche warme and fruitefull Countreys for cattelles foode, as Homer also witnesseth, yet in the Northerne Countreyes it supplies the place both of Bread and Wine. There are of it two sortes Hexastichon and Polystichum, whose eares are three, foure, & sometimes fiue square, and diuers eares springing from one grayne, euery eare conteynyng aboue fourescore graynes, so woonderfull are the gyftes and blessinges of GOD. The other sort is called Distichon, hauing in the eare but two rankes or orders only. Agayne, there is one kinde of it to be sowed in Winter, an other for Sommer. The Winter Barley is of better yeeld, but it is soone hurt, specially with much wette and frostes folowyng. There is nothyng more hurtfull to Winter Corne, specially Barley, Rape seede, and Rye, then the wette of Winter, nipped with often frostes, and after a warme thawe to be presently frozen agayne: both the sortes of Barley require grounde that is very riche. Winter Barley after two or three plowinges, is to be sowed in September: Sommer Barley in March, or Aprill, after twyse plowing: and many times, necessitie forcing, after once plowing: in the sowing, you must occupie more seede by halfe, then in sowyng of Wheate: it requires a mellowe and a fatte ground, and therfore

Barley.

is best sowen, where the grounde is most manured. The Winter seede flowreth in May, and is ripe in June at the furthest. This kinde was not woont to be sowed in these partes, but great numbers nowe, moued by my example, doo vse and receiue great gaynes by it. The Sommer Barley in many Countreys is ripe and redy in three monethes after the sowyng. In Aragon as Plinie wryteth, it maketh double haruestes euery yeere. The seuenth day after it is sowen, it commeth vp, and one end of the seede runneth downe in roote, the other, that sooner springeth, commeth vp in blade: the greater ende of the grayne maketh the roote, and the slenderer the flowre. In other grayne the roote and the blade spring both from one part, the blades of both kindes are ruffe. It must be gathered with more speede then other graynes, for the strawe of it is very brittell. Of Barley is made, as Dioscorides wryteth, both Beere and Ale.

RIGO. I lyke your Beere you haue excellently wel, I pray you tell me in what sort you make it?

CONO. I wyll not hyde my cunnyng in this matter. My Barley is first steeped in a Seltorne of water a day or two, yf it be Winter seede it is harder hulled, and requireth the longer watering. The Sommer grayne is thinner, and requireth a lesser tyme. When it is watred, I drye it vpon a floore or a keel, tyll it swel and breake, putting out as it were litle beardes or threds: yf it be layde thinne, it wyll in Sommer, specially in March, drye and breake of it selfe without any fyre. You must take good heede that in sprowting it open not to much, and loose his flowre. This being doone I grinde it, and put the meale into a Mash Fatte, whereynto I put my licour sodden, and after let it seethe three or foure times, adding vnto it, both for holsomnesse and taste, the flowre of the Hoppe: after this, I put on Yeest, and set it a woorkyng, and then cleanse it. The more it is cleansed, the holsomer and cleerer it is: that whiche commeth of the spurging, is kept both for brewing and baking: the drinke wyll be the better, yf you put to it a fourth part or sixth part of Wheate: the more Corne you lay on, the pleasaunter and better coloured wyll your Beere be. Your greatest care must be to see it well sodden, well cleansed, and well hopped, otherwyse Malt of it selfe wyll soone

corrupt.

exempt: Obſerning this order, your drinke ſhalbe both holſome and pleaſant: that endureth beſt and longeſt, that is brewed in March. There is made of Barley Alica, a reaſonable good meate, and Ptiſan: Howe they muſt be made, you may reade in Plinie. Next to Wheate and Barley, foloweth Zea, which the common people both in Italy, Spaine, and Flaunders, call Spelta: the Frenche call it Eſpeltre, with Homer is greatly commended ζείδωρος ἄρουρα, the feedes that beareth the Zeam, being as Galen ſayth, the meane betwixt Wheate and Barley, for he hath the qualities of eache of them, & is of two ſortes, the one in ſtalke, ioynt, and eare, like to Wheate, and carieth in euery huſke two ſeedes, and therefore is called δίκοκκος, the other hauing both ſtalke and eare ſhorter, and but one grayne in euery huſke, growing in two rankes, and in the toppe reſembling Barley with his ſharpe Aanes. In Italy, ſpecially about Mirandula and Concordia, it is vſed in prouender for horſes, it is not in theſe Countreys in vſe. I woulde ſowe it here, ſyth the ground wyll well ſerue for it, and that both breade and drinke might be made of it very well, but that it is ſomething troubleſome to grinde, becauſe of the double huſkes. It deſyreth a mayſt ground, riche and good, it is ſowed, after the ſame maner that Wheate is ſowed, in September or October: it flowreth in June, and is ripe in July, very meete for cold Countreys, becauſe it can abide froſt and ſtormes. Zea.

RIGO. There is (as I remember) a kinde of Wheate called Far, the auncient people called it Adoreum, that groweth in many Countreys. Far. Adoreum.

CONO. You ſay true, for with the olde ſort Far was a generall name to all Corne, as Wheate Far, Barley Far, and Rye Far, and when Mylles were not yet deuiſed, they did beate their Corne in Mortars, whereof came, that the Meale was called Farina: yet after, was the name of Far onely geuen to Adoreum, though Columella called it alwayes Far Adoreum, making foure ſundry ſortes of it. The Frenchemen call it Beance, the Italians Sandala, the Spaniardes Eſcandia, the common people of our Countrey call it Farro, the Dutche Keſkorne, whoſe grayne is very like Wheate, but that it is ſhorter and thicker, and where Wheate hath a cliſt, there hath it a riſyng: it is heauier then Barley, and lighter then

Wheate,

Wheate, it yeeldeth more Meale then any other Corne. The people of Rome as Plinie sayth, liued with this Corne at the first three hundred yeeres, it groweth in Egypt without Aune, with a greater eare and a straighter, it hath in the stalke seuen ioynctes, and can not be cleansed, except it be parched. Fraunce hath two sortes therof, one of a reddish colour, which the people cal redde Wheate, the other whiter, whiche they call white Wheate. the eare is three square, not vnlike to Spelt. In Italy they make pottage of it for their labourers. Far or Adoreum, Virgil would haue sowen before the setting of the seuen starres, after the Equinoctiall of Autumne: but in more and colde barren groundes, it is best to sowe it about the Kalendes of October, that it may take deepe roote before the freesing and colde in Winter. It is sowen in lowe grounde, watrishe, and chalkie: after it is sowed, it must be harrowed, raked, and weeded: the raking looseth in the Spring, the heauie shaeres of Winter. In raking or harrowing, you must take heede, as I haue said before, that you hurte not the rootes: weeding when it is knotted, seuereth the Corne from all anoyances. The Frenchemen sowe it in hollowe Furrowes, because it is very subiect to blasting, thinking thereby to preserue it both from blast and mildewe. To sowe it in hie ground is discommended, though it prospereth there well enough, because cattell can not away with it, for the sharpenelle and ruffenesse of the eares, and because it requireth great labour in getting of the huskes, which yf it be not cleared of, is neither good for man nor beaste the vncleane Chaffe dooth hurt with the Cough the Cattelles lunges.

Rape. Amongest the Winter seedes, Rape seede dooth chalenge his place, whiche I take to be the seede of the Rape which Plinie maketh for his third kinde, and wylde, whose roote, lyke the Raddishe, runneth in length, the leaues being ruffe like the other kindes, and the stalke bushy and full of braunches: the roote of it is good for nothing, but is onely sowed for the seede, wherof they make oyle seruing for poore mens kitchins, lampes, and lightes, specially in Germanie where they want the oyle of Olines, whereby ariseth great gaynes to the husbandman. In the hotte Countreyes where they haue other oyle enough, this seede is of no vse but in feeding of Byrdes: it is sowen in the ende of

August,

Auguſt, or the beginning of September: howe be it, moſt vſuall is ſowen in March among the Sommer ſeedes, bicauſe nothing ſo greene appeare: it is caſt into very riche grounde of wel manured, tylyde plowed and well rylled, it muſt be ſowed very thicke for being a very ſmall ſeede, it muſt not be ſowed with ſo full hande as Wheate is, but onely with three fyngers: it flowreth in March or there abouts, as the yeere is forward, and continueth his flowring a long time: the flowre is yellowe and very ſweete, wherein Bees doo muche delight: as ſoone as it hath left flowring, it is preſently ripe, it groweth two cubites in height bearing a plentifull ſeede in litle ſmall Coddes: it renderh for one buſhell, a hundred buſhels afterward. Hitherto haue I ſpoken of Winter ſeedes, nowe muſt I tell you of ſuche as are ſowen towardes Sommer.

RIGO. Wyll you ſpeake nothing of the Rape roote which is greatly occupied of the huſbandman, and not to be deſpiſed as a thing that groweth in great quantitie, & is meetely good meate both for man and beaſt.

CONO. The Rape is named of the Greekes γογγυλλις, in Italian Rapo, in Spaniſhe Nabo, in Frenche Rauen. The ordering of which, though I tooke it to belong to the garden, wherein you are able to ſay more then I, yet becauſe you requite it, and that ſometime the huſbandmen doo plant them in their Feeldes, I wyll tell you as much as I knowe therein. There are two kindes of them, the firſt dooth roote all in length lyke the Radiſhe, whiche in many places of Germanie is vſed for a dayntie meate, the other eyther groweth in great roundneſſe, or els very flatter they are nouriſhed with myſtes, froſtes, and cold, three monethes together, and growe to an exceedyng greatneſſe. Plinie wryteth, that he hath ſeene Rootes of them that haue weyghed fourtie pounde. Some ſay, they haue ſeene of them that haue weyghed an hundred pounde. It is wonderfull, that of ſo litle a ſeede ſhoulde come ſo great a roote. The Greekes make two kindes of them, the male and the female, both commung of one ſeede, the male when it is ſowed thicke, and the female when it is ſowed thinne. There are two ſeaſons for the ſowing of it, eyther in March, whiche wyll be ripe about the tenth of June, or in July or Auguſt,

guſt, after the firſt plowyng, commonly vppon the ground where Rye and Winter Barley haue been newely had of. It is thought they are the ſweeter by lying in the ground all Winter, when as the encreaſe is not in the leaſe, but in the roote. They are alſo ſowed (as Plinie wryteth) in hot & moyſt Countreys in the ſpring, and wyll the better encreaſe yf they be ſowed with Chaffe, who woulde alſo haue the ſower naked, and in caſtyng the ſeede, to wyſhe good lucke to hym ſelfe, and to his neyghbours. They are preſerued from the Caterpiller, which commonly conſumeth the young leaues, by mingling the ſeede with Soote, or ſteepyng them all a nyght in the iuyce of Houſeleeke: Columella affyrmeth, that he hym ſelfe hath ſeene it proued.

RIGO. Nowe proceede (I pray you) with your Sommer ſeedes.

CONO. The Sommer ſeedes are almoſt all ſuche as are ripe within three monethes, or foure at the vttermoſt after they are ſowen, and ſome of them ſooner, yf the grounde and the weather be good. Among the ſommer ſeedes we wyl firſt talke of grayne, and after of pulſe. Of the grayne, Oates are the firſt that are ſowed, though Virgil count them barren, and Plinie counteth them rather weedes then Corne, affyrmyng that Barley when it proſpereth not, wyll many tymes turne to Oates: yet the Frenche men and the Germanes count it (at this day) the beſt prouender for Horſes, and foode for Cattell. Plinie alſo witneſſeth, that the Germanes vſed to make pottage of Oates. And Dioſcorides maketh mention of Oaten pottage. πόλτος ἐκ βρόμου γίνεται, pottage or gruell is made of Oates, it is called of the Greekes βρωμος, in Italian Vena, in Spaniſhe Auena, in Frenche Auoyne, in Dutche Hauer, whiche though it growe not commonly in Italy, yet vpon monte Ficelto, and in the kyngdome of Naples about Siponto it is founde. We haue amongſt vs two kyndes of them, one full and weyghty, ſeruing in deere yeeres to make breade and mynke of, ſpecially yf it be medled with a little Barley, and this kinde proſpereth in riche and newe broken vp ground exceedingly. The other kinde is lyghter, whiche the common people call Gweit and Brumhauer, it is very lyght, and yeeldeth but little flowre nor foode, it groweth vpon ſandy and barrayne groundes, and ſer-

Oates.

ueth

with well for Cattell and for Horſe, both the kyndes haue lyttle toppes, from whence hangeth the ſeede in lykewyſe reſemblyng the Graſſehopper: the flowre of it is white, and from one grayne there ſpringeth diuers ſtalkes. With Dioſcorides, Bromos is a kynd of Oates that reſembleth Wheate in the ſtalke and the blade, and groweth like wylde Wheate. Theophraſtus calleth it ἀιγίλωπα. The Oate is not daungerous in the choyſe of his grounde, but groweth lyke a good fellowe in euery place, where no ſeede els wyll growe. Of the lyke diſpoſition almoſt is Buck or Beeche wheate, vnknowen to our olde fathers. It is called φαγόπυρον, Beechewheate or μελάμπυρον Blackwheate, though μελάμφυλλον ſignifieth an other grayne. I had rather call it Beechwheate, becauſe the grayne thereof is threecorned, not vnlyke the Beechemaſt both in colour and fourme, differing onely in the ſmalenesſe. The ſtalke is very great, and ſtraked like to the greater Fearne: It hath many branches with a buſhy toppe, a great ſort of white flowres in a knop, lyke the flowres of Elder: it flowreth long together, and after appeareth the grayne, firſt white and greenyſhe, in ſhape threecornerd: after they be ripe the colour chaungeth to blacke or browniſhe like a Cheſtnutte. This grayne hath not long ſince ben brought from Ruſſia & the Northerne partes into Germanie: nowe is it become common, and vſed for fatting of Hogges, and ſerueth the common people in deare ſeaſons to make breade & drinke withal, it may be ſowed in any ground how badde ſo euer it be: howbeit, it dooth beſt in good grounde, and is ſowen in Aprill and May, and in June, after the reaping of Rape ſeede. You muſt ſowe leſſe of it vppon an acre by a fourth part then of Wheate or Rye: it is much vſed to be ſowed vpon the ground where Rapes growe, wherby the ground dooth yeelde a double Croppe in one yeere. When it is ſowen, it commeth vp, yf it be moyſt weather, within foure or fiue dayes after, hauyng two leaues at ỹ firſt appearing, not much vnlike to Purcelaine. Buck.

Amongſt the Sommer ſeedes is alſo receiued Sommer Barley, whiche from the Nonnes entring into the Æquinoctiall, till the end of Marche and Aprill, is ſowen, and is reaped againe for the moſt part in three monethes, or at the vttermoſt foure. It requireth (as Winter Barley dooth) a riche and a mellowe grounde, Sommer Barley.

and

and to be ſowed after twyſe plowing, though ſometime for neceſſitie it is ſowed after the fyrſt plowyng. And though it yeelde not ſo good nor ſo perfect a grayne as the Winter Corne dooth, whoſe grayne as Theophraſtus wryteth, is farre more perfect and of ſtronger ſubſtaunce, bringing greater ſtrawe and weightier Eares, yet becauſe it is harder huſked, and the Sommer ſeede more fyne and gentle, is therefore of moſt men deſired, and counted to yeelde more flowre then the Winter grayne: ſome a-
Millet. gayne preferre the other Millet, called in Latine Millium, in Greke κεγχρος, in Italian Milio, or Miglio, hauing as it were a thouſand graynes in a Eare, as Feſtus ſeemeth to auowe, in Spaniſhe Mijo, in Frenche Millet, and in Dutche Hyers, where they make pottage of it and bread. The Ruſſians and Moſcouians are chiefely nouriſhed with this kinde of pottage, which they make with the flowre mingled with milke, and the blood that they let from their Horſes. The men of Ind, as Plinie ſayth, knowe no other grayne but Barley and Millet, which grew in his time plentifulleſt in Campania, it is the beſt leauen that may be made, neither is there any grayne comparable to it for weyght, that more increaſeth in baſkyng: for of one buſſhell hath been drawen three ſcore pounde of bread, and a buſſhell of ſodden meate, made of three quarters wet and vnſodde. It is ſowed at this day in euery place, though very little in ỹ lowe Countrey, it groweth with a ſtalke full of ioyntes a cubite high, a leafe like a Reede, a round and a ſmall ſeede hanging downe in long rimmes with many toppes, it groweth ſometime ſeuen foote hie, it delighteth in a watriſhe moorie grounde, and in grauel, ſo it be nowe and then ouerflowen, it hateth dyrt and chalkie groundes. Some geue counſell to ſowe it fyrſt in a colde and a wette ground, and then in a hotte ground: before the Spring you muſt not ſowe it, for it delighteth muche in warmth. A little ſeede of it, is ſufficient for a great deale of ground: yf it be ſowed thicke, it comes to nought: a great handfull wyll ſerue a whole acre, wherefore in raking, you muſt rake out what is more then needefull: an acre beareth fourtie buſſhels, yf it be wel ſowed, euery ſeede yeeldeth about a pottell. It is forbidden to be ſowen among Vines or fruite trees, and muſt continually be weeded and raked. When the eare is full growen, it muſt be gea-

there

thered with the hande, and dryed in the Sunne, leaſt the whot weather ſhatter the ſeedes. This grayne may very long be preſerued, for being well layde vp where the winde can not come, it will well laſte an hundred yeere. There is an other like grayne that they call Indian Millet, with a great grayne, and a blacke and bigge reedy ſtalke, whiche was fyrſt brought into Italy in the raigne of Nero, which (as Plinie ſayth) was called Loba, where as Lobæ are rather the Coddes of all Pulſe, and Phobæ the manes and toppes of Millet, as it appeareth by Theophraſtus. Panicum is called of the Greekes ἔλυμος, of the Dutch Pfennich, or Heidengreiſs, of the Italians Pannacho, the Spaniardes Panizo, the Frenchemen Paniz, ſo called of the little Pannicles wherein the ſeede lyeth. It commeth vp like Millet, with many leaues and ſlippes, glittering with a reddiſhe buſhy toppe, full of ſeedes lyke Muſtard ſeede, ſome yellowe, purple, blacke, and white: it muſt be ordered in all thinges almoſt as Millet: being ſowed in Sommer, it is ripe in fourtie dayes after: in other places ſowed in May in wette grounde, it is to be geathered in September. The harueſt, and the vſe of it, is almoſt all one with Millet, neyther can it as Millet be fined without parching, when it begimes to ſpindel, it muſt be well weeded, leaſt the weedes ouergrowe it: being well dreſt with Cheeſyl and Milke, it maketh indifferent good meate, in bread it is not ſo muche vſed as Millet: for the bread is very dry, and croombleth lyke Sand or Aſhes, being altogeather without moyſture or cleauing: but the common people remedying that with Larde or Oyle, doo make a ſhift with it as wel as they can. They that dwell about Pontus, are ſayde to eſteeme it aboue all other foode, as the people of Nauare doo at this day. In many Countreys it is vſed onely to feede Pigeons withall. Of the number of outlandiſhe grayne, is Ryſe, in ſhare as Theophraſtus ſayth, lyke Darnell, hauyng a buſhy toppe lyke Millet or Pannicle, but no Eare: his grayne is lyke the kinde of Barley called Zea, the leaues are thicke lyke leaues of Leekes, but broader, the ſtalke a cubite hie, the floure purple. This grayne is but geaſon in Fraunce and Germanie, but in Italy and Lumbardy common, where it is called Elriſo, and Meneſtro Del riſo, the Frenchmen leauyng the fyrſt letter, doo call it Riſon, the Greekes ὄρυζα,

Panicle.

Ryſe.

the

the Spaniardes call it Arroz, Plinie ſuppoſeth it to be engendred of the water Sedge. There is made of it Furmentie, as Horace calles it Ryſe Furmentie. It is ſowed in March as Millet and Pannicle is. The Indians (they ſay) do bruſe it before they ſowe it, to make it the lighter of digeſtion. And as Strabo reporteth, they make drinke of it.

Seſamum. RIGO. What ſay you to Seſamum, that was greatly in vſe in the olde tyme?

CONO. Seſamum is named with the Greekes σήσαμον, the Italians Seſamo, the Spaniard Aioniolj, the Frenchemen Iugiolin. In tymes paſt, it hath been more vſed and greatly commended, both of Columella and Plinie. At this day it is knowen to a very fewe, as a great ſort of ſeedes els are, in ſo muche as the very Corne that we daily ſeede of, we ſcarſely knowe what it is. Some reckon it in the number of Grayne, and ſome of Pulſe: the ſtalke thereof is not lyke Millet or Pannicle, full of ioyntes, but playne and ſmoothe lyke a reede, the leaues thereof ruddy, the ſeede white, not ſo bigge as Lineſeede, and is conteined in little knoppes like Poppie: it is ſowen before the ryſing of the Seuen Starres, after the maner of Italy. Columella ſayth, that he hath ſeene it in Cilicia and Syria ſowed in June and July, and reaped in Autume. It requires a mellowe blacke moulde, though it wyll growe vppon good ſandy grounde, and forced ground, rayne is hurtfull vnto it after it is ſowed, where as it dooth good to all other grayne, no great Cattell nor Vermine wyll meddle with it, it hurteth ground very muche, becauſe of the great quantitie and thickneſſe of the ſtalke, and the number of the rootes. Plinie wyteth, that it was brought out of India, and vſed both for meate and oyle. But to returne to ſuch graine as we are acquainted with. Amongſt the Sommer ſeedes is Myſcelyn to be reckoned. The huſbandmen doo ſometime make a medley of ſundry ſortes of ſeedes, and ſowe them partly for Cattell, and partly for hope, that though ſome of them fayle, yet ſome wyll growe. But here muſt you beware, leſt you mingle not Winter Corne and Sommer Corne together, for that were a great ouerſight, and one of them muſt needes periſhe. Some Barley may well be mingled with Otes or Buck, as well for brewing, as for feeding of cattell: and Tares

or

other lyke Pulse may be myngled with Dates, as very good foode for healthe. They are to be sowed in tyme and place as I haue tolde before, in my generall entreatyng of them.

RIGO. You haue well satisfied me for Grayne and Corne, you may nowe (yf it please you) doo as much in Pulse.

CONO. Pulse or Podware, is called of the Greekes ὄσπρια, the other partes of the fruites of the grounde: of these, there are sundry sortes as you haue seene of Corne: some put Millet, Panicle, and Sesamum, to this kinde, because Columella sometimes puts them in the number of Grayne, and sometime of Pulse: but I folowyng Plinie herein, doo put them amongest the kindes of Grayne, accountyng those to be Pulse, whose seedes are conteyned in coddes, as Beanes, Pease, Lentiles, Tares, Chyches, Fytches, and such lyke, which all are to be sowen in the Spryng. Of all kinde of Pulse, the greatest honour is due to the Beane as Plinie witnesseth, as to a Pulse that is most commodious for man and beast. In Greeke it is called κύαμος, in Italian and Latine Faba, in Spanishe Haua, in Frenche Feue, in Dutche Bonen. This amongest all other Pulse groweth in height without any stay: it hath a chicke leafe, a creasted flowre of diuers colours, spotted white and blacke, whiche Varro calles the lamentable letters, it hath a long Codde, his fruite within beside, lyke the nayle of a man, of diuers colours, it appeareth at the fyrst with many leaues lyke a Pease, and not with one alone lyke Wheate. It is sowed fyrst of all other Pulse in the Spryng tyme as Virgil wyll haue it, and timely, because of Fabalia, whiche is the offall of the Beanes, for both the Coddes and the stalke, is a foode that cattel muche delightes in. Columella reporteth howe he heard a skilfull husband say, that he had rather haue the offall of Beanes timely sowed, then the Croppe of that which is ripe in three monethes, yet muste sowe them in the encrease of the Moone, and after once plowing. It is sayde, that yf they be enclosed in Goates doung and sowed, they wyll yeelde great encrease, and that the partes that are eaten of grashoppers, in the encrease of the Moone wyll fyll in agayne. Yf they be sowed neere to the rootes of Trees, they wyll kyll them. Some holde opinion, that yf they be steeped in Cowes bloode, they wyll be safe from all hurtfull wormes, and

Of Pulse.

Beanes.

that layde in water a day or two before they be ſowen, they will growe the ſooner. The Beane delighteth in riche and wel dounged ground, as all other Pulſe dooth: wette and lowe grounde it dooth not refuſe, though all the reſt deſyre dryer grounde. It wayeth not weedyng, being able to ouergrowe them. Of all other Pulſe it onely ſpringeth with an vpryght ſtalke full of knottes, and hollowe. And where as all other Pulſe are long in flowyng, this flowyeth longeſt, flowing fourtie dayes together, one ſtalke beginning when others end, and not all at one time as Wheate, they codde in ſundry dayes, the loweſt part of the ſtalke flowyng fyrſt, and ſo vpward ſtyll in order. So fruitefull are they in ſome places, as you ſhall finde one ſtalke to beare a hundred Beanes. The Beanes ſticke cloſe to their Coddes, the blacke in theyr toppes, the Latines call Hilum, the Coddes Valuuli, the woormes that breede in them, Midæ. Lomentum is the Meale which the people in olde tyme dyd vſe for the ſmoothing of their ſkinnes. Freſa Faba was the Beane that was but ſmally broken, and huſked in the Hyll. Refrina was that whiche they uſed to offer in ſacrifyce for good lucke with their Corne. It is good to ſteepe your Beanes in the water of Saltpeeter, a day before you ſowe them, you ſhall keepe them from Wyuels as (Palladius ſayth) yf you geather them in the wane of the Moone, and cherilhe them, and lay them vp before the encreaſe. Beanes, and all other Pulſe doo mend the ground that they are ſowen in.

Peaſe. The next to Beanes in woorthynelle and ſowyng is Peaſe, called in Greeke πίσον, in Italian Piſe, and Piſelle, in Spaniſhe Aruera, in Frenche Peſe, in Dutch Erreten, a Pulſe that groweth with hollowe ſtalkes and full of braunches lying vpon the grounde, many leaues and long, the Coddes rounde, conteyning in them round ſeedes and whiter though Plinie wryte, that they be cornard as Chych, of which ſorte we haue ſome at this day likewiſe, with flowres in ſhape like the Butterflye, purple coloured toward the middeſt. There are two ſortes of Peaſe, the one ſorte couereth to climbe alofe, and muſt be vp vppon ſtickes, to whiche with little wynders he windeth hym ſelfe, and is for the moſt part onely ſowen in Gardens, the other ſort groweth lowe, and creepeth vpon the grounde: both kindes are very good to be eaten, ſpecially when they be young and tender,

ter, they muſt be ſowen in warme groundes, for they can in no wyſe away with colde: they are ſowed eyther vppon fallowes, or rather in riche and yeerely bearing ground once plowed, and as all other Pulſe, in a gentle and a mellowe moulde, the ſeaſon being warme and moyſt. Columella ſayth, that ground is made very riche with them, if they be preſently plowed, and the Culter turne in and couer that whiche the Hooke hath newely left. They are ſowed among Sommer Corne, commonly with the fyrſt. Fyrſt Beanes, Peaſe, and Lentiles, then Tares, and Dates, as is ſayde before. Peaſe and Tares muſt be ſowen in March and Aprill, and in the wane of the Moone, leſt they growe to ranke, and flowre out of order: where as the beſt ſowing for all other Pulſe and grayne, is in ỹ encreaſe of the Moone. There are that count Peaſe to be the Pulſe that the Greekes call ὄροβος, the Latines Ervum, the Italians Eruo, the Spaniardes Yeruo, the Dutchmen Eruen, of which there are two kindes, the one white, the other red. The later is wylde, and groweth in Hedges and Corne feeldes: it is a ſmall plant, hauyng his leaues narrowe and ſclender, his flowre eyther white, or medled with purple, growyng neere together like Peaſe, there is no great buſineſſe about it, it delighteth in a leane barren ground, not moyſt, for it wyll be ſpilt with too muche rancknes: it muſt be ſowed before Marche, with which moneth it agreeth not, becauſe it is then hurtfull vnto cattell. Eruilia is a Pulſe like ſmal Beanes, ſome white, ſome blacke, and others ſpeckled: it hath a ſtalke like Peaſe, and climeth lyke a Poppe, the Coddes are ſmoothe like Peſcoddes: The leaues longer then the leaues of Beanes: the flowre is a pleaſant foode to Bees. In Fraunce and Lumbardie it is called Dora, or Dorella, Phaſeolus in Latine, in Greeke σμίλαξ κηπαία garden Smilax, ſome call it Faſiolum, and Dolichium, among the Italians ſome call it Fagiuoli, ſome Smilace, de gli Horti, others Fagiuolo, Turcheſes, others Lobatie, the Spaniardes call it Friſoles, the Frenchemen Faſioles, and Fales Pinceos, the Dutchmen Faſelen, or wylde Boonen. It is a kynde of Pulſe, whereof there are white, redde, and yellowe, and ſome ſpecked with blacke ſpottes: the leaues are lyke Vine leaues, but ſomething tenderer, the ſtalke is ſclender, wyndyng, with clauſes about ſuch plantes as are next hym, trumpyng

French Beanes.

by so hie, as you may make Herbers vnder hym, the coddes are longer then Fennigreeke, the Graynes within diuers colloures and fashioned lyke Kydneys: it prospereth in a fatte and a yeerely bearyng ground, in Gardens, or where you wyll: and because it climeth aloft, there must be set by them poales or staues, from the whiche runnyng to the toppes, it climeth vppon Trees, seruyng well for the shadowyng of Herbers and Sommer houses. It is sowen of diuers from the Ides of October to the Kalendes of Nouember in some places, and with vs in Marche. It flowreth in Sommer, the meate of them is but indifferent, the iuyce not very good, the Coddes and the Graynes are eaten together, or lyke Sperage. The Iewes sell them at Rome preserued, to be eaten rawe. Lens and Lenticula, in Greeke φακὸς and φακὴ, in Italian Lendiriæ bon mænastre, in Spanishe Lenteza, in Frenche Lentilla, in Duche Linsen, is a Pulse very thicke and bushy, with leaues lyke the Tare, with three or foure very small Graynes in euery Codde, of all Pulses the least, they are soft and flatte. The white ones for they pleasauntnesse are the best, and such as are apteste to seethe and consume moste water in their boylyng. It is sowen with vs in Germanie in March and in Aprill, the Moone encreasyng, in mellowe ground, being riche and dye: yet Plinie would rather haue the ground leane then riche, and the season dye: it flowreth in July, at whiche tyme by ouer muche rancknesse and moysture, it soone corrupteth. Therefore to cause it quickely to spryng and wel to prosper, it must be mingled with dye doung before it be sowen: and when it hath lyen so mingled foure or fyue dayes, it must be cast into the grounde. It groweth hye (as they say) when it is wette in warme water and Saltpeter before it be sowen, & wyl neuer corrupt being sprinckled with Bengwin and Vineger. Varro wylleth, that you sowe it from the fiue and twentieth day of the Moone to the thirtieth, so shall it be safe from Snayles. And Columella affyrmeth, that yf it be mingled with Asshes, it wyll be safe from all annoyance. Lyntels.

Cicer in Latine, in Greeke ῥεβιθος, in Italian Ceci, Cicere Rosso, and Cicere bianco, in Spanishe Garuangos, in Frenche Chiche, and in Dutch Cicererbs, is a bushy kynde of Pulse, hauyng a rounde Codde, and therein a couple of thycke cornered seedes, wherof Chyche.

there

there are that make three kindes, whyte, read, and blacke, differing onely in the colour of theyr flowre: the best kinde hath a stickie stalke, crooked, little leaues indented, a whyte, a purple, or a blacke flowre. And wheras other Pulse haue their coddes long and bynde, according to their seede, this beareth them rounde: it delighteth in a blacke and a riche moulde, is a great spoyler of land, and therefore not good for newe broken vp ground: it may be sowen at any time, in March, in rayny weather, and in very riche ground: the seede must be steeped in water a day before it be sowen, to the end it may spring the sooner: it flowreth in June and July, and then falleth to seede: it flowreth a very long while, and is geathered the fourth day, being rype in a very short tyme when it is in flowre, of all other Pulse it receyueth harme by rayne: when it is rype it must be geathered out of hande, for it scattereth very soone, and lyeth hid when it is fallen. In the chych there neuer breedeth any wourme, contrary to all Pulse else: and because it dryueth away Caterpillers, it is counted good to be set in Gardens. Cicercula in Latine, in Greeke λαθυρος, in Italian Cicerse, in Spanish Cizerche, it differeth from the Chych, only in that it is somewhat blacker, which Plinie accounteth to haue bucauen corners as Pease hath: and in many places about vs, they vse them in steede of Pease, esteeming them farre aboue Peason: for they both yeeld more flowre then Pease, & is lighter of digestion, and not so subiect to wormes. Columella counes it rather in the number of Fodder for cattell, then of Pulse for man: in which number are these that followe. And first Vicia in Latine, in Greeke βικιον, in Dutch VVycken, in Frenche Vesse, so called as Varro thinkes of wynding, because it hath tendrels or claspes as the Vine hath, whereby it clymeth vpon such stakes as growe next it: it groweth halfe a yarde hie, leaued like Tyntare, sauing that they be something narrower, the flowre like the flowre of Pease, hauing little blacke seedes in cods, not altogether rounde, but brode like the Lyntell: it requireth a drye ground, though it will also grow wel enough in shadowye places, or in any ground softly stirred about, being not troublesome to the husbandman: it requireth but once plowing, and looketh for neyther harrowing nor dounging, but enricheth the lande of it selfe, specially if the

Cicercula.

Tares and fodder for Cattel.

grounde be plowed when the crop is of, ſo that the Stalkes may be turned in: for otherwiſe the Rootes and Stalkes remayning, doo ſucke out the goodneſſe of the ground: yet Cato would haue it ſowen in graſſie ground, not watrihe, and in newe broken vp ground after the deawe be gone, & the moyſture dryed vp with the Sunne and the Winde. You muſt beware that you ſowe no more, then you may wel couer the ſame day: for the leaſt deawe in the worlde dooth ſpoyle it. Neither muſt you ſowe them before the Moone be 24. dayes olde, otherwiſe the Snayle will deuoure it: his tyme of ſowing is, as Plinie writeth, at the ſetting of the Starre called the Berward, that it may ſerue to feede in December: the ſecond ſowing is in Januarie: the laſt, in March. In Germanie they vſe to ſowe them in March or Aprill, chiefly for fodder for their cattell. To ſowe Tares, and as Plinie ſayth Beanes, in not broken vp grounde without loſſe, is a greate peere of huſbandry: they flowre in June, at which tyme they are very good to ſtowre horſes: it is good to laye them vp in the rodde, and to keepe them to ſerue Cattell withall. Tares & Dates make a good meſſyne ſowed together. Lupinus in Latin, in Greeke θερμὸς ἥμερος, in Italian and French almoſt as in Latin, in Spaniſh Altramuz, in Dutch Roomſche Boonen, is a Pulſe hauing one onely ſtalke, the leafe iagged in fiue diuiſions like a ſtarre, the flowre white, the coddes iagged, & indented about, hauing within them fiue or ſixe ſeedes hard, rounde, & red, the leaues thereof doo fal. This pulſe requireth leaſt trouble, and is of ſmal price, and yet moſt helpeth the grounde of any thing that is ſowen: for there can be no better manuring for barrayne Vineyardes and Corne feeldes then this, which eyther vpon barrayne ground proſpereth, or kept in the Garner, endureth a wonderfull whyle: being ſodden and layd in water, it feedeth Oxen in Winter very well, and in tyme of dearth (as Columella ſayth) ſerueth men to aſſwage their hunger: it proſpereth in ſandy and grauelly grounds, in the worſt land that may be: neyther loueth it to haue any labour beſtowed vpon it, nor wepeth the goodneſſe of the ground. So fruitfull it is, as if it be caſt among Buſhes and Bryers, yet will it roote and proſper: it refuſeth both Harrowing and Raking, & is not annoyed with Weedes, but killeth

Lupines.

the

the weedes about it. If doung be wanteng to mende the ground withall, this serues the turne aboue all other: for being sowed and turned in with the Plowe, it serueth the turne in steede of doungyng: it is sowed timeliest of all other, and reaped last: it is sowed before all other Pulse, a little after Haruest: couer it how slenderly you wyll, it careth not, an excellent good seede for an euyll husbande: yet desyreth it the warmth of Autume, that it may be well rooted before Winter come, for otherwyse the colde is hurtfull vnto it. It flowreth thyrse, fyrst in May, then agayne in June, and last in July: after euery flowryng it beareth his codde. Before it flowreth, they vse to put in Cattel: for where as they wyll feede vpon all other grasse or weedes, onely this for the bitternesse thereof whyle it is greene, they leaue vntouched. Being dryed, it serueth for sustenaunce both of man and beast: to cattel it is geuen medled with Chasse, and for bread for mans vse: it is mingled with Wheate flowre, or Barley flowre: it is good to keepe it in a smokie loaft, for yf it lye moyst, it is eaten of little woormes and spoyled. The leafe keepeth course and turneth with the Sunne, whereby it sheweth to the husbande, euen in cloudie weather, what time of the day it is. Fenú grecum in Latine, Fenugreeke in Greeke with Theophrastus and others βούκερον ἢ τύλη, with Dioscorides καρφὸς and αἰγόκερως, of others κεραίτης, in Frenche Fenegres, and Fenigrent in Italian, Fænigræco in Spanishe, Alholua in Dutche, sometime by the Latine name, and commonly Kohorne and Lockhorne, commeth vp with a small stalke, the leafe lyke a Threeleaued grasse, it is sowed well in a slender barrayne ground, you muste take heede you plowe it thicke, and not very deepe: for yf the seede be couered aboue foure fyngers thicke, it wyll very hardly growe. Therefore the grounde muste be tyld with small Plowes, and the seede presently couered with Rakes. There are two sortes of it, the one called of the common people Siliqua or codde, whiche they sowe for fodder in September, the other in Januarie, or the begynnyng of Februarie: when they sowe it for seede, it flowreth in June and July, when also it beareth his codde, but the seede is not ripe tyll August: it is dressed to be eaten after the order of Lupines, with vineger, water and salt, some put to a little oyle: it is vsed both for fodder,

and diuers other vses. Furthermore, of Pulse called of Gellius Legamenta we haue these generall rules, that they al beare coddes, and haue single rootes euery one, except the Beane, the Thich growyng deepest. The stalke of the Beane and the Lupine is also single, the others are all full of branches and slender slippes, and all hollowe. All Pulse for the most part are to be sowed in the Spring, and require very riche grounde, except the Lupine, that cares not where he lyes: they are all sowen in the encrease of the Moone, except Peale: yf they be watred before their sowing, they prosper the better: they are speedily to be geathered when they be ripe, for they suddaynely shatter: they wyll endure longest, being geathered in the change of the Moone. It is much to be regarded whether you wyl keepe or sell them, for the seeders in the encrease of the Moone doo waxe greater, there are that preserue them in earthen vesselles, strawyng asshes vnder them, and sprinckling them with Vineger: some vse asshes alone, others some vse to sprinckle them with Bergewine vineger, as I haue saide of the Lentyll. Moreouer, the Greekes haue wylled to mingle with the doung a little Saltpeter when you sowe them, whereby they shall the better seethe and be the tenderer: and yf they be not presently tender, they wyll to cast into the pot a little Mustard seede, whiche wyll make them straightway well. Theophrastus addeth diuers thinges beside, whiche were to long to tell.

RIGO. Is it needefull for euery husbandman to sowe all these Grayne and Pulse in his ground?

CONO. No, but as I saide before, in speaking of grounde and seede, you must cheefely sowe suche as best agree with the nature of your grounde: howe be it, there are some of them that refuse no grounde. There are certayne of them as Varro sayth, that are not sowed for present necessitie, but for other afterturnes. And others agayne that are of necessitie to be sowen, as Corne for man, and Fodder for cattell: of whiche must speciall care be had, that there be no want of them, without which we can not liue: as Rye, Otes, and Buck. Lupines and certayne Pulse els for fodder, refuse no grounde, though it be neuer so barren. Besides, when as the husbandman must not onely haue a care of prouiding such as serue for the sustenaunce of man, but also for suche

Fodder for Cattell.

ſe ſerue for the feeding of poore cattell, without whiche the grounde can not be huſbanded: therefore muſt he ſowde pulſe for the uſe of man and beaſt, and fodder in more abundance for the ſuſtenaunce of beaſtes. Amongſt all ſortes of fodder, that is counted for the cheefe and the beſt, which the people of olde time, and the Italians at this day call Medica, ſome call it Treefoyle, the Frenche men cal it Grand treffe, the Spaniardes Alfalfa, others call it Burgandes graſſe, becauſe it was brought in by the Burgundians, it is nowe alſo come into Germanie, and there called Wielholken, in Greeke μηδικη. Plinie wryteth, that it was brought by the Romanes out of Media into Italy, differing almoſt nothing from Trifolly or Threeleaued graſſe: but that it is greater, higher, and rancker, for in ſtalke, leafe, and flowre, it is all one, it groweth altogeather pullying in leaues. In the toppe of the ſtalke it putteth foorth ſhort coddes, writhen like hornes indented about, and hauing as it were little prickles, wherein is the ſeede ſhaped like a Moone, and growyng to the bodde in bignelle as the Lentyl: which being chawed, taſteth like Breſe: euery codde hath his ſeede, it requireth a fatte grounde without ſtones, full of iuyce and riches in many places it commeth not vp; in others it ſpringeth very thicke. Varro giueth charge, that it be not ſowed in too dry a grounde or tickle, but in good and well ſeaſoned. Plinie would haue the grounde be dry and very riche. Columella biddeth, that the feelde where this Medica ſhalbe ſowed, ſhould be broken vp about October, and ſo to lye mellowyng all the Winter, and then to ſtirre it in Februarie, and the ſtones caſt out, to harrowe it well, and after in Marche to order it garden wyſe, caſtyng it into beddes, euery bedde ten foote broade, and fyftie in length, ſo that they may be eaſily watred, and of euery ſide well weeded: then laying on good olde doung, let it lye tyll Apryl, and at the ende of Apryl ſowe it in ſuch proportion, as euery handful of ſeede may occupie fyue foote in breadth, and ten in length: and couer the ſeede out of hand, raking them with woodden Rakes, for the Sunne wyl ſoone burne them. After it is ſowen, that it come vp an inches in heyght, you muſt beware you touche not the grounde with any iron inſtrument, but eyther with your fyngers, or with Rakes of wood, Medica.

weede it well from all other noysome thinges, otherwyse it wyll growe wylde and turne to paſture. Let the fyrſt harueſt be long deferred, to the ende he may ſomewhat ſhedhis ſeedes: at other tymes you may mowe it as ſoone as you wyl, and geue it to your cattell. Suche as are ſkilfull in huſbandry, doo ſay, that yf you mingle Otes with the ſeede of Medica, and ſowe them, they wyll cauſe them to ſtocke very well: it is ſowed in Aprill or later, in May, to ſcape the froſtes, and the ſeede is caſt in lyke ſort as Wheate is. When it beginneth to branche, all other weedes muſt be weeded away: and being this ordred, you may mowe it fyue tymes a yeere. It flowreth fyue times, or at the leaſt fiue times, ſo it be not cut. When you haue mowed it, water it well, and as it ſpringeth, weede it agayne. And thus as I ſayde, you may mowe it ſixe times a yeere, and it ſhall thus continue ten yeeres togeather: it enricheth the ground, all poore and feeble cattel, are ſoone brought vp with it: it likewyſe healeth cattell that are diſeaſed: but when it fyrſt ſpringeth, tyl cattell be acquainted with it, you muſt geue them but little at once, leſt the ſtrangeneſſe of the foode hurt them: for it maketh them to ſwell, and breedeth great abundance of blood. Columella wryteth, that one acre of it wyll well fynde three Horſes a yeere. In ſome Countreyes this hearbe dooth growe in great plentie in euery Meddowe, eyther of the nature of the grounde, or through the diſpoſition of the heauens, and ſometime the relikes of that whiche hath been long agoe ſowen, dooth yeerely ſpring of the ſeede that falleth, and ouergrowen with graſſe & weedes, dooth change into meddowe. I ſee no cauſe but that it may growe of it ſelfe, but that perhaps ſuche plantes as are brought out of ſtrange Countreys requyre ſowyng and dreſſing: it is beſt to be mowed when it beginneth to flowre, for it muſt not be ſuffered to ſeede, whereby the fodder ſhall be the better: whiche being well layde vp, wyll continue in goodneſſe three yeeres, to the great profite of the Grasier, for as I haue ſayde before, there can be no better fodder deuiſed for cattell, wherewith they wyll better feede, and ſooner ryſe. The next in goodneſſe to this Medica is Cytiſus, wonderfully as Plinie wryteth commended of Ariſtomachus, and as Vergil ſayth, a good fodder for Sheepe, and beyng dry, a delightfull foode to Swyne:

Cytiſus.

it may be mooued ſundry times in the yeere, to the great comming
dittie of the huſband: a little whereof dooth ſoone ſatte vp cattell,
neither is there any other graſſe that yeeldeth eyther more abun-
dance or better mylke, the moſt ſoueraine medicine for the ſick-
neſſe of cattell that may be: beſide, the Philoſopher promiſe,
that Bees wyll neuer faple that haue this graſſe growyng neare
them: therefore it is neceſſarie to haue your grounde ſtored with
it, as the thing that beſt ſerueth for Poultrie and Cattell: the
leaues and ſeedes are to be geuen to leane and drouping Pullen.
ſome call it Telinen, ſome Trefoyle, ſome great Melilot, the Ro-
manes call it Trifolii maius: great Traſle, it is a plant al hearie and
whytiſhe, as Rhamnus is, hauing branches halfe a yarde long and
more, whereupon groweth leaues lyke vnto Fenygreeke or Cla-
uer, but ſomething leſſe, hauyng a ryſyng creſt in the middeſt of
them. This plant was fyrſt founde in the Iſlande Cythno, and
from thence ſpread throughout the Cyclads, and ſo to Greece, wher-
by the ſtore of Cheeſe came to be great: neyther is there any
Countrey at this day, where they may not haue great pleatie (as
Columella ſayth) of this ſhrubbe. In Italy it groweth about the
incloſyars of Vineyardes, it ſhrinketh neyther for heate, colde,
froſt, nor ſnowe: it requireth good grounde, yf the weather be
very drye, it muſt be watred, and when it fyrſt ſpringes well har-
rowed after three yeeres, you may cut it downe and geue it your
cattell. Varro woulde haue it ſowen in well ordred ground, as the
ſeede of Colwoortes ſhould be, and after remooued and ſet a foote
and a halfe aſunder, or els to be ſet of the ſlippes. The tyme of
ſowyng of Cytiſus is eyther in Autume, or in the ſpryng, in ground
well plowed and layde out in beddes: yf you want the ſeede, you
may take the ſlippe, ſo that you ſet them foure foote aſunder, and
a bancke caſt about them with earth well dounged: you may alſo
ſet them before September, when they wyll very well growe
and abyde the colde in Winter: it laſteth but three yeere. Colu-
mella hath two kindes of Cytiſus, one wylde, the other of the Gar-
den. The wylde dooth with his claſpers feede very well: it wyn-
deth about, and killes his neighbours as the Iuie dooth: it is
founde in Cornefeeldes, ſpecially amongſt Barley, the flowre
thereof is lyke the flowre of Peaſe, the leafe yf it be bruyſed, ſmel-

lech

ted) like Rocket, and being champed in the mouth, it taſteth like Chyche, or Peaſe. There is an other kinde of fodder among the plantes, vnknowen to ỹ old wryters, very good to ſeede both cattel & Poultrye. I know not whether it be knowen in other Countreys beſide Germanie, the common people call it Spury, or Sperie. Sperle: it hath a ſtalke a foote in height or more, bulhed footh in many branches, it hath a whyte flowre without any leafe: the flowre endeth in little knoppes as Flaxe hath, conteynyng in them a very little ſeede like Rape ſeede. They are much deceiued that take it for Cytiſus, when that (as Dioſcorides ſayth) hath leaues like Fenugrecke, and this is altogeather without leaues: neither is the ſeede any thing like, though the vſe be almoſt one. The beſt Milke and Butter in Germanie, commeth of this feeding: wherefore it is eſteemed almoſt as good as Barley, or other grayne: the ſtrawe is better then any Heye: the Chaffe feedeth as well as any Graynes: the ſeede feedeth Pigeons and Poultrie in Winter paſſing well: it is ſowed in ſandie and light grounded, all the Sommer long, and ſome ſowe it in Spring time with Oates for the ſeede ſake: in Autume and Harueſt time it is ſowed to feede Cattell: it is profitable for huſbandes that dwell in ſandy and gravelly Countreys, wherefore they ſhoulde neuer be without good ſtore of it, for Hennes, Bees, Goates, Sheepe, Oxen, and all kinde of Cattell delight very muche in it: nowe remayneth the ſowyng of Flaxe and Hempe.

RIGO. I looke for it.

CONO. Theſe, although they be not to be receiued in the number of Corne nor Pulſe, Fodder nor Hearbes, yet is there great account to be made of them with ỹ huſbandmans thinges, without whiche no houſe can be furniſhed, nor man wel apparelled: whiche being beaten to a ſoftneſſe, ſerueth for webbes of Linnen, and clothyng of Cloathes: and more, of this ſo little a ſeede dooth ſpring that, which (as Plinie ſayth) carrieth the whole worlde hether and thether, that hyngeth Egypt to Italy, and carryeth vs from Cales to Oſtia in ſeuen dayes. Linum in Latine, in Greeke λίνον, in Italian and Spaniſhe Lino, in French Dulin, in Dutch almoſt like, ſauing that they call the ſeede Lyn and the plant Flaxe, is a very common hearbe, wherewith women

Flaxe.

are

ge set a woodke: it hath a slender stalke, not muche vnlike to Spergie, but that it groweth higher a litle, & bigger, with narrow leaues, & long blewe toppes in the top, which falling away, leaueth behinde them little round knoppes as bigge as a Pease, wherin are enclosed yellowe seedes: it delighteth in rich grounde and somewhat moyst, some sowe it in barrayne grounde: after once ploweyng, it is sowed in the Spryng, and geathered in Summer. In Gelderland and Guliche, where there is great store of it, they sowe it about the beginnyng of May: there are agayne that obserue three seasons for the sowyng of it, as the weather shall fall out, for it requireth rayne and moysture: the ripenesse of it, is perceiued by the waxing yellowe, and swellyng of the knoppes that holde the seede, being then plucked vp and made in litle bundels, it is dryed in the Sunne, the rootes standyng vpwarde that the seede may fall out. Some vse agayne to carde of the knoppes with an iron Combe, and dryyng them in the Sunne to geather the seede. The bundels afterwardes are layde in water heated with the Sunne, with some weyght vppon them to keepe them downe: the rynde waxing loose, sheweth when they haue been steeped ynough. Then the bundels vnlooſed and dryed in the Sunne, are beaten with beetelles, when as the vtter rynde is pilled of, and combed and hacked vpon an iron combe: the more wrong it suffereth, the better doth it proue: the Towe is seuered from the Flaxe, and appoynted for his vse, so are they seuerally spon vpon the Distaffe, made vp in bottomes, and sent to the Weauers, whereof are wouen webbes, to the great commoditie of al men. Last of all, the webbe is layde out in the hotte Sunne, and sprynckled with water, whereby it is brought to a passing whitenesse. It may be remembred, that not long since the women of Germanie knewe no cotteyer attyre. The best Flaxe that is at this day, is brought from Moscouia, Liuonia, and those Countreys, farre excelling ours in heyght and goodnesse. Except there be great encrease of it, & price in the Countrey where you dwel, Columella would not haue you meddle with the sowing of it, for it is most hurtfull to the ground, as Virgil hath noted.

Flaxe, vvhere he grovves dooth burne the feelde,
The lyke dooth Oates and Poppey yeelde.

And

neſt, the Countrey mans long looked for tyme, and the reward of all his toyle.

Harueſt. CONO. I wyl proceede in the accomplishing of your requeſt. When the Corne is ripe, before it be scorched with the great heate of the Sunne (whiche is moſt extreame at the rysyng of the leſſer Dogge) it is to be cut downe out of hande: for delay herein is daungerous. Fyrſt, becauſe that birdes, and other vermine wyll deuoure it: and agayne, both the Grayne and the Eare, the toppe and the ſtraw being bytterly attouer dryed, wyll ſoone fall to the ground: yf ſtorme or tempeſt chaunce to aryſe, the greateſt part thereof wyll to the grounde, and therefore it muſt not be lingred, but when it dooth looke yellowe in euery place, and before that the Grayne be thorowe hard, when they come to looke redyſhe, you muſt then haue it in, that it may rather waxe in the Barne then in the Feelde. Experience teacheth, that yf it be cutte downe in due time, the ſeede wyll growe in fulneſſe as it lyeth in the Barne: for the Moone encreasyng, the Corne growes greater: at the chaunge, you muſt geather ſuch ſeede, as your wouldſt ſhould be leaſt faute. Varro layth, that the beſt tyme for Harueſt, is betwixt the Summeſtay, and the Dogge dayes: for the Corne they ſay, dooth lye in the blade .xv. dayes, flowreth .xv. dayes, and ripeth in .xv. dayes. Amongſt Grayne & Pulſe, ſuch fruit that is to be geathered, is Rape ſeede. And becauſe the ſeede, when the cod beginneth to waxe yellowe, declareth ripeneſſe, it muſt be geathered out of hand: and yf the ſeede wyll eaſyly ſhatter, it muſt be layde eyther in playne ſmoothe places in the Feelde, or vpon Canuaſſe: and yf it be preſently to be carryed, the Wayne or Cart muſt be lyned with ſheetes, leſt with iogging and cottring of the carryage, the ſeede fall thorowe. You muſt take good heede as wellthere, as in all other Pulſe, that you preſſe not the layne, for the Grayne falling, the coddes doo open. As ſoone as your Rape ſeede is ot, yf the grounde be plowed, you may ſowe Buckewy or Blanke as they call it: ſo that of one peece of grounde in one yeere, you may make two haruelles. Next vnto Rape harueſt in theſe Countreyes, followeth the harueſt of Winter Barley, whiche is to be diſpatched before the ſeede (the Eare being ouer dryed) fall, for they

Rape harueſt.

Harueſt for VVinter Barley.

haue

haue not hal kes to conteyne them as Wheate hath, & the Eares being littel, wyll soone fall: yet some thinke it best to let the Barley lye a whyle in the Feelde, whereby they thinke the Graine wyll wax the greater. Then foloweth the Hempeharuest. But fyrst (as I sayde before) the Fymble or the Female, is pulled, and is dryed a whyle in the Sunne, then (bounde vp in bundels) it is throwen into the water, and kept downe with some weyght, that it swimme not aboue. After lykewyse the Male, the seede declaryng his ripenesse is pulde vp, and the seede beyng threshed out, it is cast into the water, tyll the stalke be softe: after beyng dryed in the Sunne, it is made vp in bundels to be knocke and shaked in Winter euenynges. Hempe harueſt.

Rye is to be mowed in June or July, and after that, Wheate. No better rule, then before the Graine be hard, and when it hath changed colour. In olde Prouerbe (as Plinie sayth) it is better to haue in haruest two dayes to soone, then three dayes to late. In Rye there is not suche feare in scattering as in Wheate, whiche as soone as it is ripe, wyll sheede with euery wynde. Wherefore good heede must be taken, that you linger not with Wheate after it is ripe: although Plinie affyrmeth, that Wheate wyll haue greater yeelde when it standes long: but surely deferring of it is daungerous, as well for the deuouryng of Byrdes and Vermine, as for shattryng and fallyng of the seede through stormes and weather: as the proofe was seene in the great wyndes that were in the yeere of our redemption. 1567. Rye and Wheate haruest.

Then foloweth the haruest of Peaſe, Beanes, Tares, and Lentyles, accordyng as they are tymely sowen, wherein you must take heede, as I warned you before in Rape seede, that they lye not abrode in the rayne: for yf they doo, they wyll open and loose their seede. Last of all, commeth the harueſt of the other sommer seedes, as of Barley, Pannicle, Millet, and Otes. It is founde by experience, that rayne is good for Otes after they be downe: for it causeth them to swell and to be fuller, and to that ende they are left in the Feelde many times two or three weekes after they be downe. The haruest of all other Corne and Pulse.

EVGO. What order haue you in your reaping?

CONO. There are diuers sortes of reaping, accordyng to the maner of euery Countrey. Some with Sythes, which differ also Diuers sorts of reapyng.

as the woorke requires. In this Countrey we vse three sortes of Corne Sythes, for eyther we haue a Sythe like a Sickle, which beeing in the ryght hande, they cutte the straw close by the grounde, and haue in the left hande a long hooke, wherewith they pull together that, that they haue cut, and laye it in heapes: and in this sort Wheate and Rye, and suche Grayne as hath the sturdiest strawe, is reaped. In other places, as in Iulis, where the grounde being very ritche, the Corne groweth higher and rancker, there they holde their left hande full of Corne, and with the ryght hand with toothed Sickles they cut it, leauing the strawe vnder their handes long, to helpe the grounde withall. In other places they vse a greater Sythe with a long Stuach, and seuered with a crooked frame of stickes, wherwith with both their handes they cut downe the Corne, and laye it in Swaches as they doo Grasse when they mowe it, and with that they mowe the higher sortes of Corne. Varro, and Columella, and other, doo tell of sundry other sortes of reaping. Palladius teacheth, beside the labour of men, a shorter way to be doone with an Oxe, that shall in short tyme cut downe all that groweth, whiche was woont to be vsed in Fraunce. The deuise was, a lowe kinde of Carre with a couple of wheeles, and the Frunt armed with sharpe Sickles, whiche forced by the beast through the Corne, did cut downe al before it. This tricke might be vsed in leuell and champion Countreys: but with vs it wouldde make but ilfauoured woorke. In reapyng, you must regarde to goe with the wynde: for yf you woorke against the wynde, it wylbe hurtfull as (Xenophon sayth) both to your eyes and your handes. If the strawe be but short, you must goe neerer the grounde: yf it be long, you may put your Sickles to the middest to dispatche it the sooner, and to make it thyselfe the better: and the stubbls vpon the grounde must eyther, accordyng to Virgils rule be burnt, or rotte vpon the grounde for the bettryng of the land. Some preserue that whiche is longest, to thatche Barnes, Stables, and Countrey Cottages withall. And where Hay is scant, it serueth for foddring of Cattell: for Barley strawe is a foode that Bullockes loue well, and beside, al kinde of strawe, is good to litter withall. When the Corne is downe, it is pretently to be bounde in sheaues: although Barley

Oates,

Otes, and other Corne and Pulſe is made out in Coppes and Rykes, but not without hurt and hazarde. The Corne thꝰ cut, is not to be had into the Barne preſently, but to be let dꝛye, accordyng to the nature of euery Graine and Pulſe: for yf it be caꝛꝛyed in before it be thꝛoughly dꝛyed, it wyll mouth and rotte. Otes and Buckwheate are longeſt eare abꝛoade, as alſo Lentyles, Peaſe, and Pulſe: becauſe they are longeſt in dꝛying. Wheate may ſoonꝛeſt be caꝛꝛyed, yf it be not mingled with any weedes, that hynder the dꝛying of it. When harueſt is in, the grounde muſt out of hand be plowed, both to kyll the weedes, and to make it the meeter for the nexte ſowyng. The Corne cutte downe and dꝛyed, is to be layde either in Barnes, Houels, or Ploughing after Harueſt. ſtackes, and after in Winter tyme be thꝛoue out with beaſtes, or threſhed out with Flayles, and to be cleanſed with Fannes.

RIGO. In Italy they vſe to treade out their Corne with Cattell, the like reporteth Xenophon of the Grecians.

CONO. In Italy, ſeeke it not elſewhere, where they rather take Beanes then Otes, and that time they alſo wynnow their Corne, thinking the Southweſt wynde to be beſt for that purpoſe: but to ſay for that, Columella thinketh but the part of a ſimple huſbande.

RIGO. I ſee you haue very large Barnes, what order obſerue you in the building of them?

CONO. You muſt ſo ſet your Barne, that the Corne may be well brought into it, and ſee it be very cloſe on euery ſide, leauing open a ſpace for twoo dooꝛes, a foꝛe dooꝛe and a backe dooꝛe, but ſo ſet, neyther of them open to the Weſt, but rather Northe and Eaſt, and at both ſides of the flooꝛe beſtowe your Corne in ſeuerall ſtalles and mowes, ſo that you may eaſyly come to euery one at your pleaſure. And though the Corne be laide vpon Barnes in the flooꝛes, yet let there be a ſpace left in the middeſt, that may be open to the very toppe, that you may fetche what ſoꝛt you lyſt to be threſhed. In ſome places they haue a Pully in the middeſt, wherewith they hoyſe vp the Corne to the very Rafters of the houſe. In Holland they haue fewe cloſe Barnes, but all houſes and ſtackes, ſo placed with hanging roofſes vppon poſtes, that with pinnes and wynches, they may heyghten it, or let it downe as they lyſt.

The Barne.

RIGO. Thoſe kynde of Barnes they ſay, are not ſo ſubiect to Myce and Rates, nor ſo chargeable as the other.

CONO. Howe ſo euer the Barne be, you muſt place it as hie as you may, leaſt ỹ Corne be ſpoyled with moyſture or dampes. Some thinke it better, for them to be thatched then tiled: the largeneſſe muſt be according to ỹ greatneſſe of your occupying. Some to the ende Cattes and Weeſels may the better come by, they doo vaute the floore with Byrckes, and laying rafters thereon, doo lay on their Corne. The floore muſt be layne and ſmoothe made, ſo as the Corne may be well threaſhed or trodden out. Columella wolde haue the floore faire paued with Flint or Stone, whereby the Corne wyll the ſooner be threaſhed, and the floore not hurt with beatyng and trampling of Oxen: and when it is ſande or wyndowed, it wyll not be full of grauell and durt, as the earthen floores peelde. But we content our ſelues with our earthen floores, well made and of good earth, mixed with a little Chaffe, and the grounded aſhes of Coyle: for this preſerueth the Corne from Myce and Emets. You muſt make it very euen and leuell, and after it is mingled with Chaffe, let it be well trodden, & ſo ſuffered to drye. You muſt keepe alſo from it Beaſtes and Poultery, whiche with trampling and ſcraping wyll make it rugged and vneuen. When the floore is drye, the Corne layde on it, is beaten out with Flayles & cleaned with Fannes, though in ſome place they rather lyke to treade it out with Oxen, and to winnowe it after the olde faſhion with the winde.

RIGO. Well ſyr, when you haue thus threaſhed your Corne, what wayes haue you to keepe it from Myce?

Garners. CONO. The Garners, or Corne lofts, wherein your Corne thus threaſhed and cleanſed ſhalbe layde, muſt ſtande hye, that they may be blowen through with the Eaſterne and Northerne windes, to whiche no moyſture from the places adioyning muſt be ſuffered to come: for ỹ quarters of the Heauen that are coldeſt and dryeſt, doo both preſerue Corne the longeſt. In Spayne and Apulia beyng hotte Countreys, the wynde is not onely let in on the ſydes by wyndowes, but alſo at the bottome by grates. Some agayne preſerues it in hauses vnder the grounde, where the drye earth dooth cheriſhe ſuch fruites as ſhe hath brought forth, leſt

as Varro sayth, in Spayne and Carthage: and in our dayes we vse to keepe both Wine and Grayne in suche vaultes. In Countreys that are very wette and watrishe, it is better to make them in Garrettes as hie as may be, hauing good regarde that it be well walled and floored. Moreouer, where as Corne is subiect to Wyuels and Vermine, except it be very safely laide vp, it wyll soone be consumed: therefore you must make with Clay mingled in steade of straw with heare, then ouercast it within and without with white Potters Claye, last of all, steepe the cootes and leaues of wylde Cucumbers in water two dayes, and with that water, and Lime, and Sand, make plaister, and washe therewith all the walles within: albeit Plinie counts Lyme as hurtfull a thing as may be for Corne. Some mingle with Lyme the dryne of Cattell, as a thing that wyll destroy Wyuels, or the leaues of Houseleeke, of Wormewood, or Hoppes: but specially yf you haue it, there is nothing so good to destroy all suche Vermine, as the dregges and bottome of Oyle: some vse in the steade therof, the pickle of Herringes. Hauing in this sort ordered their seelinges, & their floores being dry, they suppose that no hurtfull woorme shal annoy what so euer Corne they lay in them. Some lay vnder their Corne, Fleerwoort: others thinke it an assured remedie, yf they be often fanned & wynnowed, and thereby cooled: but Columella thinkes it vntrue, and that by this meanes the vermine shall not onely be not driuen out, but they shalbe dispearsed throughout all the Corne, whiche yf they otherwyse be left alone, wyll meddle with no more then the outward partes, for a handbredth depth within, there neuer breedes any Wyuels: and therefore he thinkes it better to let that alone that is alredy corrupted, and wyll goe no further, then with farther medling to marre all: for it is an easie matter when so euer ye neede to occupie it, to take away that is tainted, and to vse the rest. But for al this, experience teacheth vs, that there is no so good a remedie to destroy the Wyuel, as is the often fanning and wynnowing in Sommer. After the first two yeeres, they holde opinion they wil not meddle with Corne: but I weerie you with carrying you to muche about, and yf it please you, we wyll returne home.

Against breedyng of Vyuels.

AGO. If it be for your ease so to doo: otherwyse there can be

no greater pleasure to me, then walking abrode to heare you talke of husbandry. Are these that I see your Pastures, where your fatte Oxen, and your Mares, and your Coltes goe leaping?

Of pasture & medowe

CONO. They are so. I lay all my Pastures severall, for every kinde of Cattell to be by him selfe: in the hythermost that you see, are my Cattell that I fatte: in the next are my Horses, my Mares, and my Coltes: in the next are my young breede, Yeerelinges, and Twoyeerelinges. The Meddowes that you see in yonder Valley, lye all to be mowed. Here next to my house, are my Sucklings, that are brought to their dammes to sucke thrise a day, and therefore ought to be neare: howe be it, suche as feede farre of, must diligently and dayly be looked to, for feare of diseases.

RIGO. Since I haue troubled you this farre, I can not leaue till I vnderstand all your orders.

CONO. No trouble at all to me, but rather as I saide before, the recording hereof, is my great ioy: for in talking of these matters you bring me abrode.

RIGO. I pray you then take the paines to describe me the ordering of Pastures and Meddowes, when as there seemeth to be a great affinitie betwixt them and Corne grounde, and because they are sometimes also to be plowed, mee thinketh this part remayneth to be spoken of.

CONO. With all my hart, I wyll satisfie your desyre in as muche as I am able: and in deede since I haue all this whyle spoken of Corne grounde, it is not out of order to tell you my minde of Pasture: and although Cato in some places dooth geue the preeminence to the Vineyarde, yet other olde wryters doo most of all preferre Pastures, as the grounde that requireth least adoo about it: and therefore they were called as Varro sayth, Prata, because they were parata, alway in readinesse, and needed neither great charge nor labour, nor are in danger of storme or tempestes, as other kinde of grounde is, except suche parcels as lye neare Riuers and Ilandes, whiche are sometimes ouerflowed: and that discommoditie is sufficiently recompenced with the fatnesse that the water leaues behinde it, whiche enricheth the

grounde,

grounde, and maked it the better peerely to peede his grayne eyther in Paſture or Meddowe. The Paſtures with vs doo commonly ſerue both for Paſture or Meddowe when we liſt, ſpecially in ſuche places where the grounde is ritche and dype, whiche they had rather to employ to Paſture, becauſe with dounging of Cattell, it waxeth alwayes the better, whereas with continuall bearing of Hey, it hath growen to be mollie and nought: but where the grounde is alwayes wette and watriſhe, there it is better to let it lye for Meddowe. Columella maketh two kindes of Paſture grounde, whereof one is alwayes dype, the other ouerflowen. The good and the riche grounde hath no neede of ouerflowyng, the Hay being muche better that groweth of the ſelfe goodneſſe of the grounde, then that whiche is forced by waters: whiche ſometyme notwithſtandyng is needefull, yf the barrennelſe of the grounde requireth it: for in badde and noughtie grounde, good Meddowe may be made, if it lye to be ouerflowen: but then muſt the grounde neither lye hollowe, nor in hilles, leſt the one of them keepe the waters vppon it to long, and the other preſently let it ſoorth agayne. Therefore lyeth the grounde beſt, that lyeth leueleſt, which ſuffereth not the water to remayne very long, nor auoydeth it too ſoone. If in ſuche grounde it chaunce to ſtand ouerlong, it may be auoyded with water ſtreame at your pleaſure: for both ouerplus, and the want of water are alike hurtfull vnto Meddowes. It is very handſome, where dype and barrayne grounde lyeth ſo by the Riuer, as the water may be let in by Trenches when you lyſt: in fine, the occupying of Paſture groundes require more eare then trauayle. Firſt, that we ſuffer not Buſhes, Thornes, nor great Weedes, to ouergrowe them, but to deſtroy ſome of them, as Brembles, Briers, Buſhes, and Sedges in the ende of Sommer, and the other that be Sommer Weedes, as Sowthyſtell, and all other Thyſtels, in the Spring. You muſt take heede of Swyne, that ſpoyle and turne vp the grounde vnſauourely, and all other Cattell: except it be in hard and dype weather, for otherwyſe they guſt and marre the grounde with the deepe ſincking of their feete treading in the Graſſe, and breaking the Rootes. The badde and barrayne groundes are to be helped with moung in Winter, ſpecially in

Februarie, the Moone encreasing, and the stones, sticks, and suche baggage as lye scattered abrode, are to be throwen out sooner or later, as the grounde is. There are some Meddowes that with long lying, are ouer growen with Mosse, whiche the olde husbands were wooont to remedie with casting of certaine seedes abrode, or with laying on of doung, specially Pigeons doung: but nothing is so good for this purpose, as often to cast asshes vpon it, for that destroyeth Mosse out of hand. Notwithstanding, these are but troublesome remedies. The best and certainest is to plowe it: for the grounde after his long rest, will beare goodly Corne. But after you haue plowed it, it wyll scarse recouer his olde estate againe for Pasture or Meddowe in three or foure yeeres. When you meane to let your ground lye againe for Meddowe or Pasture, your best is to sowe it with Oates, and to harrowe the grounde euen and leuell, and to hurle out all the stones and suche thinges as may hurt the Sythe: for Oates is a great breeder of Grasse. Some doo cast Hey seede, geathered from the Heyloft or the racks, ouer the grounde before they harrowe it. Others agayne, when their Meddowes haue lyen long, sowe Beanes vpon them, or Rape seede, or Millet, and the yeere after, Wheate: and the thirde yeere they let them lye againe for Meddowe or Pasture. You must beware, that whyle the ground is loose and soft, you let not in the water, for the force of the water wyll washe away the earth from the rootes of the Grasse, and wyll not suffer them to growe together: neither must you (for the like daunger) suffer Cattell to come vppon it, except in the seconde yeere Goates, or Sheepe, or suche like, after you haue mowed it, and that yf the season be very drye. The thirde yeere you may put on your greater sort of Cattell againe, and yf the grounde be hilly and barrayne, you may doung the highest part of it in Februarie, as I saide before, casting on it some Hey seede: for the higher part being mended, the rayne or water that comes to it, wyll carry downe some part of the richenesse to the bottome, as I saide before, when I spake of the manuring of earable grounde. But yf you wyl lay in newe grounde for Meddowe, and that you may haue your choyse, take such as is ritche, dewye, leuell, or a little hanging, or choose suche a valley, where the wa-

ter

ther can neither lye long, nor runne away to faſt: neither is the rancke Graſſe alwayes a ſigne of good grounde: for what goodlyer Graſſe is there ſaith Plinie, then is in Germanie, and yet you ſhall there haue ſand within a little of the vpper part. Neither is it alway a watrie grounde where the Graſſe growes hie, for the very Mountaines in Sycherland yeeld great and hie Graſſe for Cattell. The Paſtures that lyes by the Lakes of Dumone in Auſtri and Hungry are but ſclender, nor about the Rhine, ſpecially at his falling into the Sea about Holland, as likewyſe in Friſlande and Flaunders. Cæſar Vopiſcus, the Feeldes of Roſcius were the principal of Italie, where the Graſſe would ſo ſoone growe, as it woulde hide a ſtaffe in a day. You may make good Meddowe of any grounde, ſo it may be watred. Your Meddowes are to be purged in September and October, and to be ridde of all Buſhes, Brambles, and great foule Weedes, and al thinges els that annoy them: then after that it hath often been ſtirred, and with many times plowing made fine, the ſtones caſt away, and the cloddes in euery place broken, you muſt doung it well with freſhe doung, the Moone encreaſing. Let them be kept from gulling and trampling of Cattel. The Mouldhilles & dounging of Horſe and Bullockes, muſt with your Spade be caſt abroade, whiche yf they remaine, would eyther be harberours of Antes and ſuche like Vermine, or els breeders of hurtful and vnprofitable weedes: your Meddowes muſt be laide in towardes Marche, and kept from Cattell, and made very cleane: yf they be not ritche, they muſt be mended with doung, whiche muſt be laide on, the Moone encreaſing, and the newer the doung be, the better it is, and the more Graſſe it makes: whiche muſt be laide vpon the toppe of the higheſt of the grounde, that the goodneſſe may runne to the bottome. The beſt hearbe for Paſture or Meddowe, is the Trefoyle or Clauer: the next is ſweete Graſſe: the woorſt as Plinie ſaith, is Ruſhes, Fearne, and Horſetayle.

RIGO. Howe ſhall I knowe when the Graſſe is ripe, and redy to be cutte?

CONO. The time of cutting of it, is when the Bent beginneth to faſe and to ware ſtiffe, and before it wyther. Cato bidues not to mowe your Graſſe with the lateſt, but before the ſeede be

ripe.

ripe. It is best cut downe before it wyther, whereby you shall haue both more, and better Hey of it. Some, where they may ouerflowe it, doo water it a day before they cut it, it cutteth better after a dewye Euening.

RIGO. Doo you cut Graſſe in the like ſort as you doo Corne?

CONO. Almoſt in the like ſame ſort, ſome do vſe ſhort Sythes, mowing it with one hand: but we here doo vſe the common great Sythe, mowing with both our handes, as I ſaide before, that Dates, and Barley, and ſuche other like Corne was mowed: whiche Sythes we vſe to sharpe with Whetſtones, or inſtrumentes of Wood dreſſed with Sande. The Graſſe being cutte, muſt be well tedded and turned in the Sommer, and not cocked till it be drye: and yf it chaunce to be wette with rayne, it muſt not be turned, till the vpper part be dryed. There is a meaſure to be vſed in making of it, that it be not had in too drye, nor to greene. The one ſort, yf the iuyce be dryed vp, ſerueth only for litter: the other (too greene and moyſt) yf it be carryed into the Loft, rotteth, and the vapour being ouerheated, falleth on fyre and burneth. And yf ſo be the rayne chaunce to fall vpon the Graſſe that is newe cut downe, yf it be not ſtirred, it takes not ſo muche harme: but yf it be once turned, you muſt ſtill be ſtirring of it, otherwyſe it will rotte. Therefore the vppermoſt part before it be turned, muſt be well dryed with the Sunne and the Winde: when it is dryed, we lay it in windrowes, and then make it vp in Cockes, and after that in Mowes, which muſt be sharpe and piked in the toppe, the better to defend it from the rayne: whiche yf it doo not fall, yet is it good ſo to doo, that they may ſweate in the ſaide Mowes, and digeſt what ſo euer moyſture is in it. And therefore good huſbandes doo not lay it vp in their Lofte, till ſuche time as it hath ſweat in the Feelde. Graſſe is commonly mowed twyſe a yeere, in May or June, and againe after Harueſt: the firſt mowing is counted the beſt. As ſoone as the Hey is of after the firſt mowing, it woulde be ouerflowed (yf you may conueniently) to the ende the after ſwath may be mowed in Autume, whiche they call in Latine Cordum. In the Dukedome of Spoleto, it is ſaide they mowe foure times a yeere, being drye grounde, and diuers other places twyſe a yeere. Medica may be

cutte

ſixe times a yeere, yf it be ordered as it ought to be. It is beſt mowed when it beginneth to flowre, for it muſt not growe to ſeede: being dryed, it is made vp in bundels, and kept good three yeeres, to the great comfort of poore Cattell: but becauſe I haue tolde you of Medica before, it is but vayne to rehearſe it agayne.

RIGO. You haue ſpoken of a very large and great knowledge of huſbandry, whiche out of doubt requireth in a man great trauayle and diligence.

CONO. It requireth in deede great diligence and trauayle, howebeit, it recompenceth the paines and the charges not without great gaynes, whereof Plinie bringeth for example Caius Creſinus, who when vppon a little peece of grounde he reaped more fruite and graynes a great deale, then his neighbours did vppon their great occupiers, grewe into great hatred amongſt them, as though they had bewitched their feeldes: whereof being accuſed by Spurius Albinus, and fearing to be condemned, when the Queſt ſhould paſſe vppon him, he bringes all his inſtrumentes of huſbandry into the common place, and brought in therewithall his daughter, a iolly great ryple, his iron tooles perfectly wel made, great Spades, mightie Coulters, and luſtie Cattell: loe here (quoth he) myne enchauntments, neither can I bring before you my great and painefull labours, watchinges, and ſweat: whereuppon he was preſently quitte by the voyces of them all. But I keepe you to long about my huſbandry, it is good time we leaue and goe home. The diligẽce of Caius Creſinus.

RIGO. With a good wyll. If I may obtayne one thing at your handes, whiche when you haue made an ende with, I wyll trouble you no longer.

CONO. What is that?

RIGO. If a man would bye a Farme or a Mannour, in what ſort ſhall he beſt doo it? for I dout not but you haue good ſkill in ſuche matters.

CONO. Iſcomachus in Xenophon telleth, that his father taught him that he ſhoulde neuer bye a peece of grounde, that had been ſkilfully or curiouſly huſbanded before, but rather ſuche grounde as by the ſlouthfulneſſe and pouertie of the maiſter, had lyen vntilled and neglected, and yet ſeeme to be very good grounde: as

it

it is better to bye a leane Horſe, ſo that he be not olde, and that he haue the tokens of a good Horſe, then a fatte Horſe, and one that is curiouſly kept. A well ordered peece of lande is helde deare, and yeelded no great encreaſe, and therefore is neither ſo pleaſant nor ſo profitable, as that which by good husbandry may be made better. Cato woulde haue two thinges to be obſerued in bying of lande, the goodneſſe of the ground, and the holſomeneſſe of the ayre: of whiche two, yf eyther be lacking, whoſoeuer dooth bye it, he iudgeth him mad, and meete to be ſent to Bedlem: for none that is well in his wittes, wyll beſtowe coſt vppon barraine grounde, nor hazarde him ſelfe for a little riche grounde, to be alwayes ſubiect to peſtilentiall diſeaſes: for where a man muſt deale with the Deuil, there is not onely his commoditie, but his life doubtfull, and rather his death then his gayne certaine. After theſe two principall notes, as Columella ſayth, Cato added of like weyght theſe three that folowe to be regarded: the Way, the Water, & the Neighbour. The goodneſſe of the waye is a great matter, for it both makes the maiſter haue a delight to goe about it, and it is commodious for carriage, whiche bringeth great gayne, and litleth charges. Of the commoditie of water who doubteth, without whoſe vſe no man is able to liue. Of a mans neighbour, he woulde haue a man haue ſpeciall regarde. Heſiodus ſayth, πῆμα κακὸς λειτον, an euill neighbour is a great miſchiefe. I haue knowen diuers, that for the troubleſomeneſſe of theyr neighbour, haue forſaken good dwellings, and changed golde for copper, becauſe they haue had falſe knaues to their neighbours, and quarellers, that ſuffering their cattel to runne at large in euery mans ground to ſpoyle their Corne and their Vines, would alſo cutte downe wood, and take what ſo euer they finde, alwayes brabling about the boundes of their grounde, that a man coulde neuer be in quiet for them: or elſe haue dwelt by ſome Caterpiller Ruffian or Swalhbuckler, that would leaue no kinde of miſcheefe vndoone. Amongſt all which commonly there is not ſo ill a neighbour, as the newe vpſtart, that takes vpon him the name of a gentleman, who though you vſe him neuer ſo well, wyll at one time or other geue you to vnderſtand from whence he comes, and make you ſyng with Claudian.

ASPERIVS NIHIL EST HVMILI CVM SURGIT IN ALTVM.

A lendar yvretche there lyues not vnder ſkye,
Then Clovvne that climes from baſe eſtate to hye.

As the Prouerbe in Englande is, Set a Knaue on horſebacke, and you ſhall ſee him ſhoulder a Knight: for an Aſſe will be an Aſſe, though you clothe him in Purple. Surely ye. Portius would haue a man ſhunne the neighbourhood of ſuche as the peſtilence. For my part am happie in this point, that I haue no neighbour that I neede to feare.

RIGO. Perhaps they dare not for your authoritie doo, as otherwyſe they woulde.

CONO. But ſince death and other caſualties ridde a man of them, the dwelling is not to be left, yf it haue other good commodities, except it be placed in the borders of ſundry Countreys that be ſubiect to great ſickneſſes. Some commend the dwelling that hath faire wayes about it, is neare ſome Riuer or good market, whereby a man may carrie his marchãdize with leſſe charges. The olde fellowes would neuer haue a man place him ſelfe neare the hie way, for pilfering of ſuch as paſſe by, and troubleſomeneſſe of gheſtes, as I ſaide before in ſpeaking of the placing of an houſe. In the letting of a Farme, thoſe thinges are to be obſerued that I ſpake of before, in deſcribing of a Bayliffe of husbandry and his labour: that you let it to ſuche, whoſe trauayle and good behauiour you may be aſſured of, and that you regard more their good ouering of the lande then the rent, which is leaſt hurtfull, and moſt gaynefull. For, where as the grounde is well husbanded, you ſhall commonly haue gayne, and neuer loſſe, except by vnreaſonableneſſe of the weather, whiche the Ciuil Lawyer ſayth ſhoulde not be any damage to the Tenaunt, or the imuasion of the enimie, where the Tenaunt can not helpe it. Beſides, the lorde muſt not deale with his Tenaunt ſo ſtraightly in euery poynt, as by lawe he might, for his rent dayes, bargaynes of wood, quit rentes, or ſuche, the rigour wherein is more troubleſome then beneficial: neither ought we to take euery aduantage, for lawe many times is right plaine wrong: neither muſt ye be ſo ſlacke on the other ſide, for too muche gentelneſſe many times makes a man the woorſe. And therefore it is good yf the Farmer

The letting of a Farme.

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be slacke in his paimentes, to make him to knowe it: but in no wyse to be a rayser or enhaunser of rentes, for that discomforteth, and many tymes vndooeth the Tenaunt. Moreouer, you must not lightly change the olde Farmer, both because of his deserues, and that he is better acquainted with the grounde then a newe. L. Volusius would alwayes say, that he was in best case for his landes, that had alwayes his Tenauntes borne and bread vp in them, whereby the long familliaritie shoulde make them more louingly to vse them selues: for sure it is an euill vse often to change Tenauntes, and therefore I doo like well that order, where the land is let for the liues of the Tenaunt, his Wyfe, and his Childe, paying a yeerely rent, so that as long as he payes his rent, and keepes the reparations, it shall not be lawfull to deceiue him: for hereby the Tenaunt shall be prouoked to order the grounde with more diligence, to repayre the house, & to looke to it in al poyntes as to his owne, bestowyng many times as muche as he hath vpon it. This way of letting lande mee seemes is best, where the ground is subiect to the Sea or the Riuer, or other daunger, that the Tenaunt be charged with the maintenaunce of it. And here be sure that you let it rather to one of habilitie, then to a an vnthriftie man that is not able to beare it, whereby you may loose both your land & your rent. In suche place as lyes neare the lorde, he may occupie it by his Bayliffe, or to hawnes: but where it is farre of, it is better to let it out for a yeerely rent vpon ỹ foresayd couenantes. For yf you occupie it with your seruantes, they wyl eyther looke yll to your cattel, or your ground, or suffer thinges to be stolen, or steale them selues, or make you be at more charges then needeth, & be careleste in euery thing. In letting of grounde commonly it is couenaunted, that the Tenaunt shall not let nor sell without leaue of the lorde, and that he shall not breake any Pasture or Medowe lande, and what, and howe muche he shall sowe of euery kinde of grayne, howe much he shall haue for Pasture, howe muche he shall let lye, and howe muche he shal mend. Here haue you almost as muche as I am able to say in ful bandyng of the grounde.

RIGO. I thanke you, you haue greatly delighted me with the describing of your Pasture grounde and Earable.

¶ The ende of the fyrst Booke.

Thrasybulus. Marius. Julia.

BEcause of the Aliance betwixt Hearbes, Trees, and Corne, and because their husbandry is almost one, it is reason that next to the first booke, written of earable grounde and tyllage, shoulde folowe the description of Orchardes, Gardens, and their fruites. Virgil in wryting of husbandry, left this part unwritten of: howbe it, diuers others both olde and newe wryters haue not without some diligence written of this part, but yet by snatches (as it were) and not throughly: whose opinions, ioyned with myne owne experience, it seemeth good to me in this booke to declare. And since the vse of Orchardes and Gardens is great and auncient, and that Homer wryteth, howe Laertes the olde man, was woont with his trauayle in his Orchardes, to driue from his minde the sorowe he tooke for the absence of his sonne. And Xenophon reporteth, that king Cyrus, as great a prince as he was, woulde plant with his owne handes, and sette Trees in his Orchardes, in suche order, as it seemed an earthly paradise. Qu. Curtius writeth of Abdolominus, that for his great vertue, of a poore Gardner, came to be king of the Sidonians. And surely, not unworthyly is this part of husbandry esteemed, seeing it doth not alonely bring great pleasure, but also is greatly profitable for the maintenaunce of household, and the sparing of charges, ministring to the husband dayly foode and sufficient sustenaunce without cost. For when (as Columella sayth) in the olde time the people liued more temperately, and the poore at more libertie feede of flesshe and milke, and suche thinges as the ground and soldes yeelded: but in the latter age when ryotte and dayntinesse began to come in, and the wealthyer sort to esteeme no fare but costly, and farre fetched, not content with meane dyet, but couetting such thinges as were of greatest price, the poore people as not able to beare the charges, were banished from the costlier cates, and driuen to content themselues with the basest foode.

The vse of Gardens of great antiquitie.

foode. And hereof ſprang at the firſt the planting of Orchardes, and making of Gardens, wherewith the pooreſt creature that was, might ſtore his Kitchin, and haue his victuals alwayes at hand, the Orchard and Garden ſerving for his Shambles, with a great deale more commendable & hurtleſſe dyet. Herein were the olde huſbandes very careful, and uſed alwayes to iudge, that where they founde the Garden out of order, the wyfe of the houſe (for vnto her belonged the charge thereof) was no good huſwyfe, for they ſhoulde be forced to haue their victuals from the Shambles or the Market, not making ſo great account of Colworte's then, as they doo nowe, condemning them for the charges that were about them. As for fleſhe, it was rather lothed then uſed amongſt them. Only Orchardes and Gardens did chiefely pleaſe them, becauſe the fruites that they yeelde, needed no fyre for the dreſſing of them, but ſpared wood, being alwayes of them ſelues redy dreſſed, eaſie of digeſtion, and nothing burdenſome to the ſtomacke: and ſome of them ſerving alſo to pouder or preſerue withal, as good marchandize at home, as Plinie ſayth, not driuing men to ſeeke Pepper as farre as Indie. Of Lucrin, I the Oyſters not regarde, as the Poet ſayth. And therefore to make them of more worthyneſſe, and that for their common profyte they ſhoulde not be the leſſe regarded, there were diuers noble men of the houſe of Valerius, that tooke their ſurnames of Lettuſe, and were not aſhamed to be named Lettuſmen. The olde people had in great eſtimation the Gardens of the daughters of Alcas, and of the kinges Adonis, and Alcinoi, of whom Homer ſo muche ſpeaketh, as alſo the great vaulted Gardens, eyther built by Semiramis, or by Cyrus the king of Aſſyria. Epicure is reported to be the firſt that euer deuiſed Garden in Athens, before his time it was not ſeene that the pleaſures of the Countrey were had in the Citie. Now when Thraſybulus trauayling in the affayres of his Prince, chaunced to come to the houſe of Marius, and carryed by him into a Garden that he had, whiche was very beautifull, being ledde about among the ſweete ſmelling flowres, and vnder the pleaſaunt Herbers, what a goodly ſight (quoth) Thraſybulus is here, howe excellently haue you garniſhed this paradiſe of yours with all kinde of pleaſures: Your Parlers, & your banketting houſes

An euyll Garden, token of an ill huſwyfe.

Or Lettuſyns.

A

Vnto

both within and without, as all bedecked with pictures of beautifull Flowers and Trees, that you may not onely feede your eyes with the beholding of the true and liuely Flower, but also delight your self with the counterfait in the midest of Winter, seing in the one, the painted flower to contend in beautie with the very flower: in the other, the wonderfull worke of Nature, and in both, the passing goodnes of GOD. Moreouer, your pleasant Herbers to walke in, whose shadowes keepe of the heate of the Sonne, and if it fortune to Raine, the Cloisters are hard by. But specially this little River with most cleare water, encompassing the Garden, both wonderfully set it forth, and here withall the greene and goodly quickset Hedges, ne changeable kind of enclosures, diuereth it both from Man and Beast. I speake nothing of the well ordered quarters, wherein the Herbes and Trees are set euery foot in their due place, the Pot herbes by them selues, the Flowers in an other place, the Trees and Impes in an other quarter, all in iust square and proportion, with Alleis e walkes amongst them. Among these goodly sightes, I pray you remember according to your promise (for so the time requireth) to shewe some part of your great knowledge in Gardening matters, sith you haue vpon this occasion heard me heretofore grabling: or rather wearying you with the declaiming of my poore skill in the tilling of the field.

MARIVS. Your memorie is herein a little to quick, but what shal I doe? promise must be kept, and since you will needs haue me, you shall heare me babble as well as I cannne, of my knowledge in Gardening: but not with the like pleasure that I heard you talking, of your grafting and your ground.

THEA. Yes truely, with as great pleasure and desire as may be.

MARIVS. Come on then, let vs here sitte downe in this Arbor, and (as I will note and then rede and walke, resting vs as at an ynn) in the meane time *THEA* shall make redy our supper. And first, euen as you began with the chusing of a place meete for your house vpon, so must I with the choise of a plot meet for a Garden. The ordring of Gardens is diuers, for some are made by the Mannour houses, some for the Delitable, some

in the Citie where so euer they be, if the place will suffer, they must be made as neare to the house as may be: but so, as they be as farre from the Barnes as you can, for the Chaffe or dust blowing into them, and either subiecte to the Dounge heape, whereby it may be made richer, or els in some very good ground that hath some small Brooke running by it, or if it haue none such, some Well or Conduite, whereby it may be watered. An excellent plot for the purpose is that which declineth a little, and hath certaine gutters of water running through diuers parts thereof: for Gardens must all waies be so be easily watered, if not with some running streame, some pumpe to be made, or kettles, Pott, or such like, as may serue the turne of a naturall streame. *Columelle* would haue you make your search for water, when the Summe is in the latter part of *Virgo*, which is in September, besides his entrance into the Winter *Equinoctiall*, for that may you best vnderstand the strength or goodnes of the Springs, when after the great burning heat of the Sommer, the ground hath a long while continued without raine. If you cannot thus haue water, you must make some standing Ponds at the vpper part of the ground, that may receiue and containe such water as falles from aboue, wherewith ye may water your Garden in the extreame heat of the Sommer: but where neither the nature of the soile, nor conueiance by Conduits or pumpe, or running streame is to be had, you haue no other helpe but the raine water of winter, which if you also haue not, the must you delue and lay your Garden three or foure foote deepe: which being so ordered, will well be able to abide what soeuer drought may happe. This is also to be regarded, that in gardens that are destitute of water, you so order them into seuerall parts, that what part you will occupie in Winter, may lie toward the South, and that which shall serue you for Sommer, may lie towards the North. In a Garden, as in the choise of Corne ground, you must loke whether the goodnesse of the ground be not hindered by the vnkindnesse of him that hath occupied it. You must also make choise of your waters, of which the best (as *Plinie* saith) are the coldest, and such as be sweete to drinke: the worst that comes from Pooles, or is brought in by Trenches, because they

The time of searching for water.

being with them the seedes of grasse and leaues: but the grasse will most delight in raine water, which killeth mosse and weedes that lodges in it: but for some herbes, salte water is not euill, as the Radish, Beete, Leeke, Saurell, to which all salt water they say, is a speciall helper, making them both pleasant and fruitfull: to all others, sweete water is onely to be vsed.

The time of watering of Gardens.

And because I haue begun to entreat of watering, I must giue this note, that the times of watering is not in the heat of the day but onely in the euening, or at night, least the water be heated with the sunne: onely Basill you must water at noone, the seede whereof will come the sooner vp, if the be sprinckled at the first with hot water. You haue heere heard, that the first necessary thing for a Garden, is water. The next to that is enclosure, that it be well enclosed, both from vnruly folke and theeues, and beasts from beasts: least lyking in waite for your herbes and pot-herbes, they may both hereaue you of your paines, and pleasure: for if either they be bitten with Beasts, or to ofte gathered by men, it hindereth them both of their growth and liuing: and therefore it is of necessitie to haue the Garden well enclosed. Now for enclosures, there are sundry kinds, some making earth in square to counterfeite Bricklonks: Others with them of lime and stones: some others of stones laide one vpon another in heapes, casting a ditch for water round about them, which kinde *Palladius* forbids to follow, because it will take out the moisture from the Garden, except it be in marish grounds. Other make their fence with the sedes and sets of Willowes: some make them of hurdle wals couered with straw or heath. *Varro* maketh mention of foure kinds of enclosures, the first naturall, the second wilde, the thirde souldierly, the fourth of expensiue woorke. The first and naturall is the quickset hedge, being set of young Thornes, which once well growen, are neither fire nor other hurt. The second is the common hedge made of dead wood, well staked and thicke plashed or raild. The thirde the souldiers fortifieng, is a deepe ditch with a rampier: but the ditch must be so made, as it may receiue the water that comes from aboue, or falls into it, whereof the rampire must be so steep, that it may not easily be climed.

Enclosing of Gardens.

this kinde of fence is to be made, where the ground lies neere the high way, or huts upon the River, of which soft I shall haue occasion to speak more hereafter. The fourth fence made by the carpenter or by the mason, is commonly knowen: whereof there is foure sorts, either of stones, or of bricke, of turfe, and earth, and little stones framed lozengde. *Columella* following the ancientest authors, preferreth the quickest hedge before the reste, both because it is vnchangeable, and also endureth the longer, continuing a long time: which hedge of young thornes, he teacheth to make in this sort. The place that you determine to enclose, must after the beginning of September, when the ground hath been well dried with raine, be trenched about with two furrowes, a foote distant one from the other, the earth whereof every one of them must be cast forth, which you must suffer to lie emptie all winter, preuenting in the meane time the seedes that you meane to plant in them, which must be the berries of Harpethornes, briers, holly, & wilde Eglantine, which the Greekes call [illegible] dog briers. The berries of these you must gather as ripe as you may, and mingle them both the foure or fiue of sorts, which when it is hailestones with water, must be put vpon old ropes of hempe, or any other ropes, the ropes being thus handled & drie, must be laid vp in some bowed place. After this when winter is done, within foure or fiue dayes after, about the rysing of the Goldilow, if there be any water remaining in the furrowes, it must be let out, and the mingled earth, which was cast out of the furrowes in the ende of Summer, must needes be cast in againe, till you haue filled them vp to the middle: then must you haue ready vnfolde the ropes, and lay them in length through both the furrowes, and so cover them, taking good heede that you throw not so much earth vpon them, as may hinder the springe, which commonly bloweth vp vpon within thirtie dayes after, & when they be growen to be of some height, they must be made to enclose to the space betweene the two furrowes: in which space you must haue a little stalked hedge, to teach the springs of other furrowes to climbe by, which will be a help vnto a comfort to them. But I haue an other & a more readier way of making of them, which you shall practise

The making of a quickset hedge.

practising in this Countrey, diuers others haue followed. I also do make a certaine Ditch, and gathering in the moste the yong springes of Thornes, cutting off their toppes, I set them on the bancke of the Ditch, so that they stand halfe a foote out of the grounde, plucking vp all the weedes (specially the first Summer) that growe about them, and sucke away the iuice that conteineth the sette. The Rootes being thus rid, I couer all the earth about them with straw, wher by both the dewe of the night is let into the Rootes, & the poore Plant is defended from the burning of the Sunne. The yere after, I make a little slender raile of poules, whereunto I lay vp the springes, weauing them in such sort as I will haue them to growe, which I yerely make higher, according to the height that I would haue the hedge to spring. Eight, or at the vttermost nine foote is a sufficient height, and what so euer springe aboue must be plashed of one side or the other, to make the fence the stronger. When I haue thus done, I make it thicker and thicker euery yeare, filling vp the places where I spie it thinne, with plashy bowes as I digrow but of other: and thus it will growe so thick with yeares trauaile, that not so much as a small bird is able to passe through it, nor any maye take the eggs in it. When it is thicke enough and big enough, the superfluous springes must euery yeare be cut. This hedge can neuer be destroyed, except it be plucked vp by the Rootes, either scratch'd with the hurt of fire, but will growe the better for it. And this is my way of enclosing a Garden, as the pleasantest, most profitable, and of least charges.

An other newer and better way of making a quickset hedge.

THRA. There is an other way of making of a quickset hedge, which our Hedgers in the Countrey doe vse, which is some thing the stronger. For setting the yong settes, as you haue saide before, when they be growen vp to some greatnes, they cut the Thorne more to the ground, and being halfe cut and broken a sunder, they bowe it along the Hedge, and plash it. Frō these cuttes spring vp neawe plantes, which still as they growe to any highnes they cut them, and plash them againe: so doing continually, till the Hedge be come to his full height. This way the Hedge is made inwouen full strong, that neither hogge nor other beast is able to breake through it: but the other is a great

An other sort of hedging.

deale more pleasant to the eye. But if I haue not settes enough to serue, may I make an Vnpe Garden of their seede?

MARIVS. Yea very well. Make your Thorne Garden or roze plot in this sort. Take your Berries or stones, & mingle them with earth, lay them vp for the first yere in some place meete for them, the next yeare sowe them as thicke as you can, and ye shall within a little time haue a whole wood of Thornes.

VHRA. You haue now spoken of Water and enclosure, two principall pointes in a Garden: It now remaineth for you to speake of the ground meete for a Garden, and of the order of dressing of it.

MARIVS. Of the sundrie sortes of ground, and of the differencing of them, because you in your describing of Corne ground haue sufficiently spoken, I do not thinke it needefull for me to repeate it. Againe, it is enough for me to adde once by this, that the ground ought not to be too riche, nor too leane, but fat and mellowe, which bringeth forth a small kinde of grasse like beanes: such ground requires least labour, the stiffe and the rich ground asketh greater paines about it, but both recompence it again with his fruitfulnes. The stiffe, leane, and cold ground, is not to be medled with. *Columella* inciteth in appointing good ground for Gardens.

The ground that giues the eye and mellowed mould,
And doth in working trobble like the Sandes:
That of his owne good nature yeeldeth manifold,
Where Violets with his purple hurrie standes.
For neither doth the ground that stiffe is drie,
Content my minde, nor yet the watrie soile:
Where as the Frogge continually doth crie,
With in the standing Lake the stillish moile.
Like the land that of a fatte doth yeeld.
The mighty Elme that branches broad doth beare,
And round about with Trees bedecks the field,
With Trees that wilde beares Apple, Plumme, and Peare.
But will no Beare set a foote, nor standing Gunne,
Nor Tame nor Plante, where deadly poison runne.

And

And this ninth of the Garden ground, which as I said, is watred, or may be watred, and is enclosed either with a wall, a hedge, or some other safe enclosure. After this, it is needefull it lie well to the Southe, and warme: for in ground that is very cold, the warmth of the Summer will not much availe it. And contrarie, if it be a hotte lieing South, the benefite of the Heauens can little helpe it. You must yet looke, that it lie not subiect to cold winds that are dyrie and scorching, and bring frosts and mistes. But now to the ordering of your Garden. First, you must be sure that the ground which you meande to sowe in the Spring, be well digged in the fall of the leafe, about the Kalends of October: and that which you Garden in the fall of the leafe, must be digged in Aprile, that either by the colde of Winter, or the heate of Summer, both the clodde may be well wrought, and the rotes of the weedes destroied, not much before that time must you dounge it. And when the time of sowing is at hand a fine daies before, the weedes must be got out, and the dounge layed on, and so often and diligently must it be digged, as the ground may be thoroughlie medled with the mucke. Wherefore the plotte of the Gardens must be so ordered, as that which you meane to sowe in the end of Summer, may be digged in the Spring: and the part that you will sowe in the Spring must be digged in the end of Summer: so shall both your soiles be defended by the benefite of the cold and the Summe. The beds would be made not aboue foure foote in length, and three in breadth, that they may be the easier tended: they must lie in such sort, that the ground have two foote bye, in the ground a foote is sufficient. If your beds lye so drie, as they will suffer no water to tarrie upon them, you must make the spaces betweene them, that the water may be forced to lie and runne when you will. Of the kinds and sortes of dounging being sufficiently entended of by you, I will saie nothing: only adding this, that the dounge of Asses is the best, because it breedeth fewest weedes: the next is Cattelles dounge, and Sheepes dounge, if it haue lien a yere. The grounds of seed which we meane to sowe in the Spring, we must after the end of Summer, let lye fallowe, to be ordered with the frostes of the colde, for as the heate of Sum-

What to be considered in the choise of Garden ground. Ayre. Winds.

The ordering of Gardens.

Beddes.

Of digging and dunging of Gardens.

mer, so doth the cold of the Winter bake and season the ground. When Winter is done, then must we beginne to doung it, and about the fourteenth or fiftenth of Januarie, we must digge it againe, deuiding it into quarters and beddes. First must the weedes be plucked vp, and turfes of barrayne ground must be layed in the Allyes, which being well beaten with Beetles, and so trod vpon, that the Mould be become a powder, so that it scarce appeare, it will after Spring vp as fine as little heare, and yelde a pleasant sight to the eie, which will be very beautifull. When you haue seasoned your flowers by themselues, your Physicke hearbes by themselues, and your Potte hearbes and Sallets in another place, then deuide the in deuine mill beds call. as the Gardeners haue many readye the midest of them, so shall they obtaine the best labour bestowed vpon the beddes, nor to hurt the hearbes. And this I thinke sufficient for the preparing of your ground before the sowing.

Of sowing. Now will I speake of sowing, and what shalbe sowed in euery season. To speake of all sortes of hearbes and flowers, were an endelesse labor, only of those that are most vsed shall I entreate of. And first of hearbes, some are for the Potte, some for the sight, some for pleasure and sweete sauour, and some for Physicke. And againe, some are for Winter, some for Summer, and some betwixt both. The first time of sowing after Christes, is the moneth of March, Aprill and Maye, wherein may be sowed Coliander, Fennill, Anyse, and after Beetes, Lettuce, Sorrell, Mallowes, Coliander, Dill, and Garden Creses. The second season for sowing, is in the beginning of August, wherein they set Beets, and sowe Smallage in *Nouember* and *December*. The third season, which they call the Summer season, in some place the Gardeners begin in Januarie, wherein they set Cucumbers, Onions, Spinnach, Basill, Purslane, and Sauerie. Many things may be sowed betwixt these seasons, and yet be very well. All Garden hearbes are commonly sowen before the end of June, such things as you would not haue sed, you may sow after this time. Some things are sowed but once in a yeare, in the spring, and in the end of Summer. Other against all sundrie times, as Lettuce, Colworts, Radish, Basill, Creses, Coliander, Cheruill,

Chervill, and Dill. These are sowed about March, or about September, and *Columella* saith, do come either of the seede, or of the slippe: some of the Roote, some of the stalke, some of the Leafe, some of the Clot, some of the Head, some of both: others of the Barke, others of the Pith, some, both of the seede and the slippe, as Rewe, wilde Marierum, and Basil, this they cutte of, when it comes to be a handfull hie: Others growe both of the Seede and the Roote, as Onions, Garlike, and such like. And although all thing will growe of their seedes, yet this they saie, Rewe will not do: for it very seldome springes, therefore they rather set the slippes. Those that are set of the Roote, do commonly last longer, and braunch better, putting forth young slippes from his sides, as the Onion and Gith. The stalke being cutte, they all do spring againe for the most part, except such as have speciall stalkes, called *Theophrastus* ἄκαυλα, that is, such as when the stalke is cutte, growe no more: *Gesa* interpretes it *Secundia*. The Rape and the rawith, their leaues being pulled away and couered with earth, do growe and continue till Summer. The fruites of some is in the earth, some without: some both within and without, some lye and growe, as the Cucumber and the Gourd, and sometimes hang, though of greater weight by much than the fruites of trees: some require staies and helpes to climbe by, as Poppes, Lupines, and Beanes: some seede groweth better. The nether they be, as Leekes, *Nigella Romana*, Cucumbers, and Gourdes, and therefore some vse to steepe their Cucumbers, in Milke or Water, to cause them to growe the speedelier. On the other side, of old seede better groweth the Beete, Garden Cresses, Peniriall, great Marierum, and Coriander. In the Beete this is chiefly obserued, that the seede commeth not all vp in one yeere, but part the second yeare, and some the third: and therefore of a great deale of seede, springeth but a little. Touching seede, this is to be well seen to, that they be not to old and dry, that they be not mingled, or taken one for an other: old seede in some is of such force, as it chaungeth the nature: for of old Colwort seede springeth the Rape, and likewise of Rape seede Colworts. Also that ye gather not your seedes to soone, nor to late. The verie time, as *Theophrastus* writeth, Of seedes

maketh, is at the Spring, the fall of the leafe, and the riſing of the Dogge: but not in all places and kinds alike. Of ſeedes, the ſoneſt that ſpring are theſe, Baſil, Arach, Nauew, Rocket, that commeth vp the third daie after the ſowing, Lettuſe the fourth daie, the Cucumber and the Gourd, the fifth daie, Purſlin longer ere it come, Dill the fourth daie, Creſſes, and Muſtardſeede the fifth daie, Beetes in Sommer, the ſixth daie, in Winter the tenth or the twelfth, Leekes the xii. daie, ſometime the xv. Coriander later: which if it be new (except it be thruſt together) it groweth not at all. Veneriall, and great Marierom, come vp after thirty daies. Parſely, of al other the longeſt before it come vp, appearing the fortieth daie after, or many times the fiftieth. You muſt alſo conſider, that the weather in ſowings is of great force: for ſeaſon being faire and warme, they come vp the ſoner. Some ſorts ſeede one yere, and neuer after come vp: ſome againe continue, as Parſely, Smalledge, Leekes, Nigella, that being once ſowed, come vp euery yere. Such as continue but a yere, preſently vpon their ſeeding die: other ſpring againe after the loſſe of their ſtalke, as Leekes, Nigella, Onions, and Garlike: and commonly al ſuch as put out from the ſide: and al theſe require dounging and watring. In ſowing beſide ſome thinke you muſt haue regard to the Moone, and to ſowe and ſet in the encreaſe, and not in the wane. Some againe thinke it beſt from that ſhe is foure daies old, till ſhe be eighteene: ſome after the third, others from the tenth, til the twentieth: and beſt (as they all ſuppoſe) the Moone being aloft, and not ſette.

What ſeed ſpring ſoone, and which ſlowlie.

The weather for ſowing.

The Moone.

THRA. But now I praie you tell us ſomthing of the ordering of the beſt Garden hearbs you haue.

MARIVS. Some deuide their Gardening time by the Moneths, as they do their other husbandrie.

THRA. I care not whether by Moneths, or other waies, but I would faine know the ordering of your Garden here: for I know in hot countries they garden all the winter long, but I am altogether for our coūtrie, whoſe order we muſt here folow.

The time for gardning.

MARIVS. In theſe parts they commonly begin their Gardening (if the weather be faire and ſeaſonable) in the end of Februarie. At this time therefore the Garden being dunged,

ged, digged, raked, and cleanſed, they vſe to plant Sperage, and Riwe.

THRA. I pray you begin with *Aſparagus*, or Sperage, and the other pot hearbes, euery one in his order, & afterward with flowers, and Phiſike hearbes. Of pot herbes.

MARIVS. *Aſparagus* was wont to growe wilde, but now is brought into the Garden, it is called in Greeke ἀσπάραγος, in Italian, Spaniſh, and French, it is almoſt all one, the one calling it *Aſparago*, the other *Aſperge*, the Dutch men call it *Sperages* and *Spiritus*, becauſe it comes vp of it ſelfe: For the Garden Sperage they were not acquainted with. It is planted in two ſortes, either of the Séede, or the Roote. They take of the ſéede as much as you may take vp with three fingers, and ſtrowing it in little holes, euery two or three ſéedes halfe a foote aſunder: they ſet them in rich ground in Februarie, and couer the ground with doung. The weedes that growe, muſt be well plucked away, after the fourtieth day they come vp as it were to one roote, and tangled together, the rootes haue ſundry long thredes, which they call the Sponge. In ground that is cold, the ſéedes are to be ſet deepe, and well ſpered with doung. In wet grounds on the other ſide, they are to be ſet shallow in top of the borders, leaſt the moiſture deſtroy them. The firſt yeere you muſt breake of the ſtalks that grow, for if you plucke them vp by the rootes, the whole ſettes will follow, which are to be preſerued for two yeere with dounging and weeding. All the yeeres after, you muſt not gather them in the ſtalk, but pul them from the roote, that the rootes being opened, may the better ſpring, which except you doe, you hart the Spring. Him that you meane to keepe for ſéede, you muſt in no wiſe meddle withall, after, burne vp the buſhes, and in Winter doung well the rootes with doung and aſhes, they are planted alſo of the roots, which after two yéeres you muſt remoue into a warme well dunged ground. The trenches where you meane to ſet the, muſt ſtand a foote aſunder, and a ſpeetman in depth, wherin you muſt ſo lay your ſpoges (as being couered) they may beſt ſpring: but in the ſpring before they come vp, you muſt loſe the earth with a little fforke, to cauſe them the better to ſpring, and Aſparagus.

to make the rootes the greater. *Cato* woulde haue you to rake them, but ſo, as you hurt not the Rootes, and after to pull the Plant from the Roote: For if you otherwiſe breake, the Roote will die, and come to nothing. But you may ſo long crop it, till you ſée it begin to growe to ſéede: in which yéere for the Winter time, you muſt according to *Catoes* minde, couer it with ſtraw, or ſuch like, leaſt the cold do kill them, and in the Spring open it againe, and doung it well. Some thinke, that the firſt yéere it is needeleſſe to doe any thing to the Plant, but onely to weéde it. From the Rootes, which they call the Sponges, there ſpringeth firſt certaine buddes with crompled knoppes, very good and pleaſant for Sallets: which if you ſuffer to growe, it ſtraightway buſheth forth with braunches like Fennell, and at length growe to be prickly: after it hath floured, it beareth a Berry, firſt green, and when it is ripe red. If you woulde haue Sallets of *Aſparagus* all the yéere through: when you haue gathered the Berries, open the Rootes that runne aloft by the ground with digging, and you ſhall haue the Rootes ſend forth newe buds out of hande. It is thought, that if you breake to ponder the horne of a Ram, and ſalue it, watring it well, it will come to be good Aſperage. In the Spring time they make a very good Sallet, being ſodde in water, or fat broth, till they be tender: for if you ſeeth them too much, they will waſte away. When they be ſod, they dreſſe them with Vineger, Oile, Pepper and Salte, & ſo eate them: or as my friende William Prat very skilfull in theſe matters telleth me, they cut them in ſmall peéces like Riſe, and after they haue parboiled them, butter them with ſweéte butter, a little Vineger and Pepper.

THRA. You haue very well ſhewed me the ordering of *Aſparagus*, I pray you go forward to Rewe.

Rue.

MARVS. Rewe, which the Grécians call ῥυτὴ, the Latines *Ruta*, the Italians *Ruta che*, the Spaniards *Ruda*, the Frenchmen *Rue de gardin*, is planted at the ende of February, or in March, proſpering beſt in drie and ſunnie grounded, it abhorreth both water and doung, which all other herbes muſt delight in, it alſo delighteth in aſhes: and where all other plantes will ſpring of the ſeede, this they ſay will neuer do it.

The

The branches being slipped off, and set in the spring, will soon grow, but if you reserve the old roote, it will be better, for by that in the first time of the spring it (and being taken (as then say) it prospereth the better: it is loved both rotting, as Cummin, and flowers other, and can not abide the presence of an inchaste woman.

THRA. I see good Lettuse here, I pray you how doe you order it?

MARIVS. Lettuse is called in Dutch Lattich, in French *Laictue*, in Greeke σρίδιξ, in Italian *Lactuca*, and so in Latine, in Spanish *Lechugas*, whereof besides the wilde, there are three kinds, one crompled, which *Columella* calleth Cæcilia, and Spanish Lettuse, of the countries where it most groweth, and is greatest esteemed, in Dutch called Krauser Lattich, in French *Cresspe*, the other Cabbedge Lettuse, in Dutch Knopf Lettich, in French *Laictue testue*, of *Plinie* called *Lactuca capitata*, because it groweth rounder like an head, as an apple. The third sort is called *Rostrata*, because it groweth in compasse upon the ground. Lettuse.

THRA. I thank you much, you be learned Gardiner, now before you order them.

MARIVS. In the end of February, or in the beginning of March, use to sowe it, that it may be removed above Aprill. Plain. In hot countries as *Palladius* telleth, they sowe it in January, or in December, both intent to remove it till February: but you may sowe it at any time of the yeare, so the ground be good, well compast, and sowen, when you remove them, the roots must be pared and rubbed also with dung, and such as be already planted, their roots must be bared and bedded they love a good ground, must well dunged, the sowen the better (if you sticke them by the Rope), as I shewed you before in Endive, the Saline is right tenderly chewed, you may sprinkle a little of it, they will be white, if you tie the tops of them after they bee sowen, the sunne shall not burne the leaves, and they shall be more tender, and sweeter then if they grow abroad, you shall prune them, if they grow to fast before they be gathered, they will be thicke, they will be round and Cabbedged, if the rootes being removed, shall set it in a greene place, and often watered,

be

beginning with the first day of the Change of the Moone, and earthed about it, beeing well watered; and when it groweth big, the coppe beeing vp, and the leaues laied vpon it, the sweeter also they will be, the more you restrain the stalke from shooting vp, which must as I saide, be kept vnder with some stone or weight, that they may spread the better. If the Lettuse chaunce by reason of the badnesse of the soile, the seede, or the season, to waxe hard, the remouing of it will bring it againe to his tendernesse: it will haue sundrie and diuers tastes, if taking a Dreddle of Sheepe, or Goates doung, and hollowing it cunninglie with an Aulle or a Bodking, you thrust into it the seede of Lettuse, Cresses, Basill, Rocket, Smallage, Percely, and Radith, and after wrapping it in doung, you putte it into verie good ground and water it well. The Percely, or Smallage goeth to rote, the others growe in height, keeping still the taste of euery one. *Constantine* affirmeth Lettuse to be a moist and a cold hearbe, a quencher of thirst, and causer of sleepe, and that being boiled, it nourisheth moste, and abateth Lecherie, for which the *Pythagorians* do call it *Eunuchion*. *Galen* him selfe, the Prince of Phisitions doth greatly commend it, who in his youth did alwaies vse to eate it raw, & after in his elder yeeres boiled, whereby he kept his bodie in good temperature. Endiue; in Latine *Intibum*, or *Intubus*, not vnlike to Lettuse, some call it Garden Succorie, the Dutchemen and common sorte *Endiuien*, the Italians and the Frenche *Cicorea*, the Spaniardes *Endibia*, it is sowen as other Garden hearbes is earthy, it loueth moistures and good earth, but you must make your beddes when you sowe it the flatter, least the earth falling awaie, the rootes be bared: when it hath put forth fiuer leaues, you must remoue it into well manured ground, that which is sowen betwixt the kalendes of Iulie, hath name Endiue, but that which is sowen after, Scariole. You must sowe that which your vsuall vse is to eate in Winter in October, in warme shorte places for Sallades in Winter, they vse this way when his leaues be out, to tie them together, and tie them rounde in the toppe with some small thing, couering them with some little earthen vessell, the rootes still remaining to nourish them: for hall a thousand, they will

Endiue.

grow to be white and tender, and to be the great part of their nourriture. It is said, that they will be white, if they be sprinkled with Sea-water abroad, and being upon land, be washed with the same: And thus is Caraine with his increase preserved all Winter. Some there be, that neglecting these kinds with little charges or labour, do only cover them with earth, others against with straw: this order of Wintering of it, is used in every place generally to be common.

THEAT. Now I will add in this pleasant Garden Colworts, Colworts that the Country folks be so well acquainted with.

MARIVS. It is meete my Garden should have that, which as you know *Cato* preferreth before all other herbes, in describing the wonderfull properties and vses thereof: and this place I adde by appoint for such comfortable herbes, as Colworts, Beets, Cauline, Daisies, Mapes, Fennels, Lettice, Cheruils, Rasocils, Carlocke, and Parsnips: the healthier sort I place by themselves, and as the nature of every one requireth. Colworts is commonly called in Latine *Brassica*, or *Caulis*, in Greeke *κραμβη*, in French *Choux*, in Italian *Cauli*, in Spanish *Verça*, in Dutch *Kool*. The old writers make mention of sorts of it, as at this day there be. One sort with great mossie leaues, a big stalke, and very fruitfull. This sort is commonly husbanded, which being the pleasanter in Winter, when it is bitten with the frosts, is sod with Bakon, and vsed in Potrage. The tender part of the top being a little boiled, is vsed for fillets, seasoned with oile and salt. The second sort hath the resemblance, of the resemblance that it hath to foliage, is called *Selinoides* or *Apiaria*, of the common people *Colewort*, or *Cole*, and *Cole*. The third sort which is properly called *Crambe*, hath a smaller stalke & leafe, smooth, tender, and not very full of iuice. The fourth sort is the great Cabbage with broad leaues and a great head, called in Dutch *Kappes*, in French *Chaux Cabus*, of the olde writers *Tricana Brassica*, and this kind is onely most set by. In Germanie there is one kinde of the that they call *Lumbardie Colewort*, or *Senoy Colewort*, sweeter than the other, and not able to endure the Winter: and another with very broad leaues crumpled, and full of wrinckles,

wrinkles, but a great deale blacker, which the Italians call *Nigrecule*, and the Latines *Nigra Brassica*, of the number of those that they call commonly rede Cole, of the olde writers *Marcina Brassica*. There are besides other sortes, taking their names of the Countrey where they growe, as *Sabina* and *Cumana*. The best time for setting and sowing of Colworts, is after the Ides of April. In cold and rainie Countries, the oftener it is dunged & raked, the better a great deale will the Colworts be. Some vse to sowe them about the Kalends of March, but then the chiefest of it goeth out in leafe, and when it is once cut, maketh no good stalke for the Winter after: yet may you thus remoue your greatest Cole, and if you so do, you shal haue both more seed, and greater yelde: for it so aboundeth with seede as it is seised with no lesse abundance then Rape seede. For the making of oile, Colworte may be sowen all the yere long, but chiefly in March after it is sowed, it appeareth within ten daies, except your seedes be old and dry, for old seede will growe to Rapes, as old Rape seede will to Colworts. Some say it prospereth best in Salt ground, and therefore they vse to cast vpon the ground Saltpeter or ashes, which also destroieth the caterpiller: it is removed in June, chiefly when it hath put forth fiue leaues, and that when the weather is rainie, so that you cover the rote before with a little fresh dung, and wrap it in sea weede, and so set it. More diligence is to be vsed about the Cabbedge: it must be sowen in March in the full of the Moone, that it may remaine in the ground nine Moones, and in June you must take them vp, and set them againe two foote a sunder. The ground must be well digged where you set them, and as tall as they growe, the earth must be raised about them, so that there appeare no more than the very tops of them: for to cause them to growe faire and great: you must as oft as you remoue them, bande them vp with earth about them, that nothing but the leaues appeare. And thus you must often do to all the kindes of them, the more frosts make them haue the greater sweetnesse. The Vineyards (they say) where Colworts growe, doe yelde the better Wines, and the Coll corrupteth the Wine.

TERRA. Now may you proceede with the rest of these pot herbs.

MARIVS.

MARIVS. Now for hearbe Spinage, so learned (as you may know) of the prickly seedes, called in Latine *Spinacia*, and euen so in Italian, Spanishe, Frenche, and Dutche: it is sowen as those before, in March, Aprill, and so till September: if it may be well watered, it commeth vp in seuen dayes after the sowing, you shall not need to remoue it. The seede must presently after the sowing be couered, and afterward wel weeded: it refuseth no kind of ground, but prospereth in euerie place, you must often cut it, for it continually groweth, it is to be boyled without any water, where in the boiling it doth yeld great store of iuyce, and containing it selfe with his owne liquour, it requireth none other. Afterwarde, being beaten and stirred with the Ladell till the clammines be gone, it is made vp in little balles: the iuyce drained out and boyled vppon a Chafyndish with Oyle or Butter, some adde thereunto Vergius, or the iuyce of soure Grapes, to make the taste more tarte. I shewe you in order as you sit all my kitchin hearbs, now followeth Sorell, called in Latine *Acetosa*, in Italian likewise, in Spanish *Romaza*, in French *Oseille*, in Dutch *Surick*, of the sowre taste thereof. Where are sundrie sorts of it, we haue at this day two kindes, the Garden Sorell and the wilde, which are pleasant both in Broth and Sallettes, and of this hearbe the wylde sorte are both sowrer in taste, and smaller in leafe: it is sowen as all other potte hearbes are, and it groweth of itselfe in medowes and Gardens. Cummin and Coriander require well ordered ground, they are sowne in the Spring, and must be well tended. Cummin is called in Greeke κύμινον, in Latine *Cuminum*, also almost like in all other languages: it is sowne there (as they thinke) with cursing and execration, that it may prosper the better. Coriander called in Greeke κορίαννον, in Latine *Coriandrum*, called in Italian by the same name, in all other languages doth best prosper when it is sowen of seede that is olde. Smallage and Parsley called in Greeke σέλινον, and also πετροσέλινον, in Latine *Apium*, *Petroselinum*, and *Apium hortense* in Italian *Apio*, and *Petrosello*, in Spanish *Perexil*, or *Perexin*, is sowed all the *Aprill* in the Spring time, the seede beaten a little, and made vp in round

Spinage.

Sorell.

Cummin and Coriander.

Smallage or Parsley.

pellettes: we call it *Equinoctiall*, when the night and the daies are of equall length ouer all the world: that is, when the sunne, the captaine and authour of the other lights, the very soule of the world, doth enter into the signes of *Aries* and *Libra*. It is thought to prosper the better the older the seede is and to spring the soner: it commeth vp the fifteenth day, or at the soonest the fourtieth day after it is sowen: when it is sowen, it abideth a long time, it reioyceth in water or wette. Fenell in Greeke μάραθον, in Italian *Fenochio*, in Spanish *Hinojo*, in Frenche *Fenoil*, in Dutche *Fenchel*, is sowed in the beginning of the Spring in hotte sunnie places, fatte grounde, as any grounde being once sowen, it springeth euerie yeare. Anise in Greeke ἄνισον, in Latine *Anisum*, so knowne in most tongues, as Cummin, and Coliander, requireth a ground well dodered and dressed. Dyll in Greeke ἄνηθον, in Latine *Anethum*, in French and Italian almost so, in Spanish *Eneldo*, in Dutch *Dyl*, ensureth and abideth all kind of weathers, but delights most in warme ground: if it be not well watered, it must be sowed thinner. Some neuer cover the seedes when they sowe them, supposing that no Bird will meddle with it, it commeth vp also of it selfe as Fenell doth. Cheruyll in Greeke χαιρέφυλλον, in Latine *Cerefolium*, in Dutch *Kerbel*, in Italian *Cerfoglio*, in French *Cerfueil*, delyteth a good ground, moyst, and well dounged: it is sowed with the rest in eche place. In this same moneth they also sowe Beetes, though you may sowe them when you will at anie other time of the yeare as Spinage, it is a common countrey hearbe, they call it in Greeke τεῦτλον, in Italian *Bietole*, in Spanish *Acelga*, in Dutche *Beet*, in *Kampell*. The Garden beetle hath greater leaues, so that with vse onely it groweth like a young tree. It is called *Beta*, vpward bowed like vnto it selfe, it is (as *Columella* affirmeth) to the likenesse of the Greeke letter Λ. There be two sorts of them, the white and the blacke, the ordering of them is after one fashion, as also Coleworts, Dosell, and Radishe are, in eche. April is the Moneth. Some thinke the best time to sowe it, is when the Pomegranade doth beloge, it may be called vnder the Signe Cancer, Leo, and diuers others, at any time of the moneth:

Fenell.

Dyll.

Cheruile.

Beetes.

The

The ſeede, the older it is, the better it is to be ſowen, as are the ſeedes of Smallage, Parſley, Garden Creſſes, Sauerie, wilde Marierum, and Coꝛriander, though in all other the neweſt be beſt. It commeth vp in Sommer the ſixth day, in Winter the tenth after the ſowing. it loueth a moiſt, a rich, and a mellow ground, you may remoue it when it hath put forth fiue leaues, if your ground like well to be watred: if it be drie grounde, it muſt be ſet in the ende of the Sommer, as I haue ſaide of Colewortes, though it make no great matter at what other time you doe it. When you remoue it, you muſt rubbe ouer the rote with neiꝛe dounq. This is proper to the Beete, that his ſeede come not all vp together, but ſome the yeere after, ſome the third yeere: and therefoꝛe of a great deale of ſeede, there is at the firſt but a little ſhewe, it groweth the bꝛoader and the whiter, if when it is ſomething growen, you lay vpon it Tyle ſtones, oꝛ ſuch like, to cauſe it to ſpꝛead, as I ſpake befoꝛe of Lettuſe. Garden Creſſes in Greeke νάπυ, in Italian *Naſturtio*, and *Agretto*, in Spaniſh *Maſtuerzo*, in French *Creſſon de gardin*, in Dutch *Kerſs*, are ſowed both in the ſpꝛing, and at the fall of the leafe, it commeth vp the firſt day after it is ſowen, and dꝛinketh away the moyſture from ſuch hearbes as growe neere him, mingled with other hearbes, he careth not what weather come, and therefoꝛe pꝛoſpereth both as well in Winter as in Sommer: if it be ſowen with Lettuſe, it commeth vp exceedingly, it delighteth in moiſture, which if it want, it will do well enough: in watrie places it groweth of his owne accoꝛde, as about *Padelbor*, a Towne in *Weſtphalia*, it groweth in great abundance in the Riuer, and therfoꝛe is called of ſome water Creſſes: it was called in the olde time *Siſimbrium*. The bꝛanches when they waxe olde, are netted togither with white heary ringes. Garden Poppy, called in Greeke μήκων κῆπος, in Latine *Papauer ſatiuum*, is thought beſt to grow, where olde ſtalkes haue been burnt, it is ſowed in warme places with other pot hearbes. Muſtardſeede in Greeke σίναπι, in Latine *Sinapi*, in Dutch *Seneff*, in Italian *Senape*, in Spaniſhe *Moſtaza*, in French *Seneue*, there are two kindes, white and blacke, it is beſt to be ſowen in the ende of Sommer, and againe in March.

Garden Creſſes.

Garden Poppy.

Muſtard-ſeede.

pellettes: we call it *Equinoctiall*, when the night and the daies are of equall length ouer all the world: that is, when the sunne, the captaine and authour of the other lights, the very soule of the world, doth enter into the signes of *Aries* and *Libra*. It is thought to prosper the better the elder the sede is and to spring the sooner: it commeth vp the fiftieth day, or in the sowne the fourtieth day after it is sowen: when it is sowen, it abideth a long time, it reioyceth in water of nette. Fenell in Greeke μάραθον, in Italian *Fenochio*, in Spanish *Hinojo*, in French *Fenoil*, in Dutche *Fenchel*, is sowen in the beginning of the spring in hotte sunnie places, amis grounds, as any ground being once sowen, it springeth euerie yeare. Anise in Greeke ἄνισον, in Latine *Anisum*, is knowne in most kingdoms, as Cummin, and Coliander, requireth a ground well couered and dressed. Dyll in Greeke ἄνηθον, in Latine *Anethum*, in French and Italian almost so, in Spanish *Eneldo*, in Dutch *Dyl*, enioyeth and abideth all kind of weathers, but delights most in warme ground: if it be not well watered, it must be sowed thinner. Some neuer cover the seedes when they sowe them, supposing that no Bird will meddle with it, it commeth vp also of it selfe as Fenell doth. Cheruyll in Greeke χαιρέφυλλον, in Latine *Cerefolium*, in Dutch *Kerbel*, in Italian *Cerfoglio*, in French *Cerfueil*, desyreth a good ground, moyst, and well dunged: it is sowed with the rest in cold places. In this same kinde they also sowe Beetes, though you may sowe them when you will at anie other time of the yeare as Spinage, it is a common countrey hearbe, they call it in Greeke τεῦτλον, in Italian *Bietole*, in Spanish *Aruelga*, in Dutche *Beet*, or *Mangelt*. The Garden beetle hath greater leaues, & that with out vpstanding stalke: it groweth like a young tree. It is called *Beta*, because the letter B. is like vnto it, it is (as *Columella* affirmeth) to the likenesse of the Greeke letter Β. There be two sorts of them, the white and the blacke, the ordering of them is after one fashion, as is shewed in Colewoorts, Sorrell, and Mallowe herbs, in March, Aprill or May. Some thinke the best time to sowe it is whilst the Pomegranets doth blossome, it may be sowed vnder the full moone, Dogs, and many others, at any time of the moneth:

The ſeede, the older it is, the better it is to be ſowen, as are the ſeedes of Smallage, Parſley, Garden Creſſes, Sauerie, wilde Marierum, and Coꝛriander, though in all other the neweſt be beſt. It commeth vp in Sommer the ſirth day, in Winter the tenth after the ſowing, it loueth a moiſt, a rich, and a mellow ground, you may remoue it when it hath put forth fiue leaues, if your ground like well to be watred: if it be drie grounde, it muſt be ſet in the ende of the Sommer, as I haue ſaide of Colewortes, though it make no great matter at what other time you doe it. When you remoue it, you muſt rubbe ouer the rote with newe doung. This is proper to the Beete, that his ſeede come not all vp together, but ſome the yeere after, ſome the third yeere: and therefore of a great deale of ſeede, there is at the firſt but a little ſhewe, it groweth the broader and the whiter, if when it is ſomething growen, you lay vpon it Tyle ſtones, or ſuch like, to cauſe it to ſpread, as I ſpake before of Lettuſe. Garden Creſſes in Greeke νάπυ, in Italian *Naſturtio*, and *Agretto*, in Spaniſh *Maſtuerzo*, in French *Creſſon, de gardin*, in Dutch *Kerſs*, are ſowed both in the ſpring, and at the fall of the leafe, it commeth vp the firſt day after it is ſowen, and drinketh away the moyſture from ſuch hearbes as growe neere him, mingled with other hearbes, he careth not what weather come, and therefore proſpereth both as well in Winter as in Sommer: if it be ſowen with Lettuſe, it commeth vp exceedingly, it delighteth in moiſture, which if it want, it will do well enough: in watrie places it groweth of his own accorde, as about *Padelbor*, a Towne in *Weſtphalia*, it groweth in great abundance in the Riuer, and therfore is called of ſome water Creſſes: it was called in the olde time *Siſimbrium*. The branches when they ware olde, are netted togither with white heary ringes. Garden Poppy, called in Greeke μήκων ἥμερος, in Latine *Papauer ſatiuum*, is thought beſt to grow, where olde ſtalkes haue been burnt, it is ſowed in warme places with other pot hearbes. Muſtardſeede in Greeke σίναπι, in Latine *Sinapi*, in Dutch *Seneff*, in Italian *Senape*, in Spaniſhe *Moſtaza*, in French *Seneue*, there are two kindes, white and blacke, it is beſt to be ſowen in the ende of Sommer, and againe in March.

Garden Creſſes.

Garden Poppy.

Muſtard-ſeede.

Where it is once ſowen, it is hard to ridde the ground of it againe, becauſe the ſeed doth ſtill growe as it falleth. It loueth to growe vpon doungh ils, and calk bankes.

THRA. I ſee you haue very faire Radiſhes here.

MARIVS. Nothing ſo faire as I haue had them, for where as they delight in the Sunne, and in warme ground, my Gardners haue here ſet them in the ſhadowe. The order of them is to be ſet in very good ground, and lying vpon the Sunne: ſome ſayth, it doth not greatly care for doung, ſo it may haue Chaffe ſtrawed vpon it. When it is come to ſome growth, they muſt be couered with earth, for if it floriſh once aboue the ground, the rotes will neuer be good, but hard and full of pithe. It is called Radiſh, becauſe it exceedeth all other rotes in greatneſſe. *Plinie* writeth, that he ſawe at *Erford* in Germanie, Radiſhe as big as the bodie of an Infant. It is ſowed twiſe in the yeare, in Februarie or Marche, the Moone being in the wane, leaſt it growe too much in leaues, foure fingers diſtant one from the other: and againe in Auguſt, which is the beſt ſeaſon for them. Thoſe that you ſet after the tenth of June, will neuer ſeede, the like is to be obſerued in all other ſeedes, it commeth vp commonly the third day after it is ſowen: in hote and Southerlie Countreis, the weather being faire, it groweth ſone to ſtalke, and quicklie ſeedes. The leaues as they growe, muſt ſtill be trampled downe and troden vpon, whereby the rote ſhall growe the greater, otherwiſe it floriſheth with leaues, and giueth encreaſe to the leafe, & not to the rote: the leſſe and the ſmother the leafe is, the milder and the ſweeter is the rote: cold as ſome ſay, doth further the goodneſſe of them. They ſay they will be verie pleaſant, if the ſeede be ſteeped in Meadth, or in the iuice of Raiſins: they ware ſweete with colde as the Rape doth, and their bitterneſſe is taken away with vrine, and therefore ſome would haue Radiſhes watred and nouriſhed with ſalt waters: being ſodde, they come to be very ſweete, and ſerue the turne of Rapes, giuing ſalting, they prouoke vomite, they are hurtfull to the Vines and to the Teeth. Radiſh eaten at firſt, is a good preſeruatiue againſt poyſon: eaten before meate, it breaketh winde, and

Radiſh.

prouoketh

prouoketh vrine: and after meate it loseth the belly, it is called in Greeke ραφανος. in Latine *Raphanus*, in Italian *Raphano*, in Spanish *Rauano*, in French *Rave*, in Dutch *Retich*.

THRA. There is an other kinde of them, that the Dutch men call *Merretich*. I take it to be that which the Romanes called *Armaracia*, called commonly in Italy *Ramaracia*, the first letter misplaced.

MARIVS. You say well, but this is more full of branches, greater in leaues, thinne in roote: the leaues are not vnlike to the former Radish, but that they are a little sharper and longer, and the roote slenderer, and therefore there are some that denie it to be *Armaracia*: but here let the Phisitions contend. *Theophrastus* maketh mention of sundry sorts of Radish. This kinde of Radish hath a wonderfull byting taste, a great deale more than Mustard seede, and fetcheth teares from the eies of them that eate it: it is set and planted in this sort. The roote is cut in a great number of peeces, whereof euery peece prospereth: for if you plucke vp this kinde of Radish by the rootes, you may cut off a good quantitie of the roote, and dividing them into small peeces set them, setting the olde roote againe by himselfe, and they will all growe and prosper very well.

THRA. Yea, haue you gotten the Rape? Hitherto I thought he had only belonged vnto vs, for we vse to sowe them after the Summe hath beene at the highest, and immediately after, ouer other Corne, for the sustenance both of man and beast.

MARIVS. You doe well, and we sowe it also in Maie, and in watery grounde sooner, and in some places in Julie. There are diuers sorts of them, some of them rounder, some growe all in length, and are most pleasant in taste, as at *Binge*, and in the Countrey of *Bauar*. Some againe of the quantitie of a mans head, and of a hundred pounds weight: but the smallest sorte is the sweetest. There is an other kinde of Rape that they vse to sowe, which carieth his seede in little coddes, and is chiefely planted in Germanie for to make oyle of, the which you the other daye spake of, it is called in Greeke ραπυς. in Frenche *Rave*, in Italian *Rapo*, in Spanishe *Nabo*, in Dutche *Raben*. Rapes.

The little Rape. There is alſo another wilde kinde called *Rapuncula*, that groweth hauing a yarde high full of knee, and leaues topped. This they gather in the Spring time, before the ſtalke be ſpoong vp, and pulling it vp by the roote, doe vſe it in ſallettes, ſuppoſing it to be a wilde kinde of Rape. The Nauens alſo called in Greeke, in Latine *Napus*, in French *Nauet*, in Italian *Napo*, in Spaniſhe *Nabicas*, in Dutch *Snakenben*, may be counted in the number of Rapes, for Rapes in ſome grounde change into Nauens, and in ſome grounde, Nauens into Rapes. Theſe alſo loue to growe in a well tilled, mellow, and rich ground: though ſuch as growe in ſandie and barraine ground, proue often the ſweeteſt in eating. They vſe to ſowe them in March, and in ſome places before, as alſo in Auguſt. Parſnippe in Greeke in Latine *Paſtinaca*, in other tongues almoſt as in Latine, is verie pleaſant to be eaten; and requireth a fatte and rich grounde, and deepe digged, leſt the roote may haue roome enough to growe in: it is ſowed and ſet in the ſpring, and in the ende of Summer.

Nauens.

Perſnep.

Redde and yellowe Carrets. *THRA.* You haue here alſo in the Garden red Carrets.

MARIVS. I haue ſo. Yellowe Carrets is called in Greeke, in Latine *Siſer*, in French *Chiruelle*, in Italian *Sifero*, in Spaniſhe *Chirinias*, in Dutch *Querlin*. I thinke you know it. *Plinie* writeth, that *Tiberius* was ſo in loue with this roote, that he cauſed Carrets to be yerely brought him out of Germanie, from the Caſtell of *Geldubs* ſtanding vpon the Rhine. It delighteth in colde places, and is ſowed before the kalendes of March, and of ſome in September: but the thirde and the beſt kinde of ſowing is ſome thinke is in Auguſt. There is alſo wilde Carret, a kinde of Parſnep, in Greeke, in Latine *Daucus*, in Italian *Dauco*, in French *Carote ſauuage*, in Dutch *Woortzel*, there are that ſuppoſe it to be the yellowe roote, this is ſo common in Germanie, they are to be ſowen in March. It is generall to all ſuch, Radiches, Parſneps, Carrets, Onyons, and Leekes, that they be well troden vpon, or kept out, to the ende the rootes may growe the greater. Of Leekes there are two ſortes, the one called *Capitatum*, and the other *Sectiuum*, which they vſe alwayes to cutte aſide by the

Leekes.

ground.

ground. The headed, or sette Leeke, in Greeke πράσον, in Latine *Capitatum*, in Italian *Porro capitato*, in Spanishe *Puerro con Cabeça*, in Dutch *Lauch*, in Frenche *Porreau*, the other Leeke in Latine *Sectile*, in Greeke γηθιον, in Dutche *Schnitlauch*, beside the often raking and dounging, muste be watred as oft as you eate it vodone. The seedes in colde sotte Countreys, is beste in Januarie or Februarie, and in colder places, in Marche, to cause it to growe the fayrer and the better. They vse to knit up a good deale of seede together in thinne Lynnen clothes, and so to lay them in the grounde: but to make them greater herbes when it hath well taken roote, they vse to plucke of by the blades, and raise it so, that as it were hanging and knit vp by the earth, it is forced to fill the emptie place that hys owne with the blades and the rootes cut off, they vse to set the heades, bouerlayinge them with a Mattocke, that when as they are not able to endure vnder neathe, they should be driuen to growe vpwarde and bee harder. The Leeke delighteth in good grounde, and stately tearie grounde: sowed in the Spring, it muste be remoued or set againe the latter Harueste, that they may be the greater, the earth muste be continually loked about it, and they muste be pulled and cleyed vp, as I sayde before: if when you remoue them, you make in the heades of euery one a little hole with a peece of a Reede, or any thing except Iron, and thrust therein a Cucumber seede, they will growe to a wonderfull greatnesse: some vse in steade of Cucumber seede, to put in Rape seede. To haue very large and great Leekes, you muste hollowe a Treadle of Goates dounge, and fyll it full of Leeke seede, for the little sprouts at the first resurrayned, will runne altogether in one, and lye vnder neath of the grounde: and thys as *Hieronimus Cardanus* writeth, hath beene often tryed to bee true. They shall not fauour of Leekes or Onyons, that haue eaten Cummin after. It commeth vp the tenth daye after the sowing, and lasteth two yeere: the first yeere it conteineth it selfe onely with bearing of leaues, the next yeere it riseth in a long stalke hollowe within, the toppe garnished with rounde knoppes of flowres. The Onyon, in Greeke κρόμμυον, in Latine *Cepa*, or *Cepe*, in Italian *Cipolla*, in Spanishe *Cebolla*, in Onyons.

French *Oignon*, the next neighbour to the Leeke, is alſo of two kindes, the one kind called *Capitatum*, that groweth to head, the other *Fiſſile*, that without anie head only flowriſheth in blades, and is often geathered as Leekes are, and therefore onely is ſowen and not ſet in Februarie or March in faire weather, and in the waine of the Moone: it delighteth in riche ground, well digged and dounged, and therefore *Columella* would haue the ground well fallowed, that it may be mellowed with the winter froſtes, and after dounged, after well digged againe, and the roots and weeds caſt out, layd out in beds and ſowen: it is called *Fiſſile*, becauſe it is parted and diuided belowe, for in the winter it is left with his toppe naked: in the ſpring time the blades are pulled off, and other come vp in their places. The heades are ſet, and if you plucke away the tayles and the outgroſsings when you ſet them, they will grow to be berie great. Twentie daies before you ſet them, digge the ground well, and lay it aire, and ſo ſhall they proſper the better. The heades are ſet in *Autumne*, and grow to ſeede as other plants do: if you meane to geather the ſeede, when the ſtalke is grawen, you muſt prop it vp with little ſticks, that the winde ſhaking off the ſtalke, ſhatter not the ſeedes, nor breake the ſtalke: which ſeede you muſt geather before it be all blacke, for the blackneſſe is a true ſigne of the full ripeneſſe: if you will not haue it ſeede but heade, plucke off the blade ſtill cloſe by the ground, ſo ſhall all the maintenance go to the roote. Among all other herbes, only the Onyons is not ſubiect to the force of the Moone, but hath a contrarie power, for it waxeth in the waine of the Moone, and decreaſeth in the encreaſe of it: yet there are that hold opinion, that if you ſowe them in the waine, they will be the ſmaller, and ſowrer, and in the encreaſe, they will be the greater, and the milder. The red Onyon is more ſharpe then the white, they are beſt preſerued in Barley Chaffe, if firſt you dippe them in hote water, and after dry them in the funne, till they be thorough dry. They are of the common people thought to laſt longeſt being hanged vp in the ſmoake, for the burned ſtalke with the Onyon.

Fiſsile.

Onyons.

Garlicke. I proceede to ſpeake next of Garlicke, called in Greeke [illegible], in Latine *Allium*, in Italian *Aglio*, in Spaniſhe

Aio,

Ars, in Dutch *Knobloich*, in French *Ail*, it groweth with a blade like the Onyon, but not hollow, the stalke round, and the flowres in the toppe in a round tuft where the seede lieth. Garlicke groweth both of the head and the tope, as the Onyon and other of this kind doth. It is commonly sowed in February or Marche, according to the disposition of the weather, as the Onyon is. It would be sette in the ground a good distance of little narrow ridges, the Cloues being distant fower or five inches one from the other, and not very deepe. After, when the Cloues beginne to put forth the little stringes, or when their blades are come up, they must be well racked, for the oftener ye do so, the greater they will be: but if you will have the heads the greater, before it growe to stalke, you shall binde and wrythe the grene blades together, and treade them to the grounde, for that continuall treading upon them will make them the greater. In October the Cloues muste be plucked asunder, and set in rowes upon the bordures, that they may escape the danger of the winter sharpnes. They say the scentes them will confe, if you eate after them the rote of Bëtes rosted at the fire, thus saith *Plinie* out of *Menander*.

THRA. What herbe is that yonder that commeth up so high, as a man may make a staffe of the stalke, the leaues large and rounde, the flowres in shape seeming to compare with the Rose?

MARIVS. It is Hollocke, or Garden Mallowe, in Greeke [illegible], in Italian *Malue hortense*, in Dutch *Poppell*, in Italian and French, *Abutilon* as in Latine. Mallowes.

THRA. What, the same that *Homer* maketh to be so wholsome for the bodie? and which of *Hesiodus* and *Marcial* is so highly commended?

MARIVS. The very same, and also which is more wonderfull, in it the leaues turne about with the sunne, so that it may serue in stead of a Dyall, declaring by the turning of his leaues, what time of the day it is, though the Sunne do not shine, which the Philosophers thinke to be done, by the drawing of his moysture. In *Africa* as *Plinie* writeth, it commeth in seuen moneths to be like a young tree, and serue well for a

walking

walking ſtaffe. It is ſowed in October, or in the ende of the ſommer, as alſo at other times, that by the comming on of Winter, it may be reſtrained of his high growth: it reioyceth in ritch and moyſt ground, and muſt be remoued when it commeth to haue foure or fiue leaues, it groweth beſt when it is young: when it commes to be greater, it dies in the remouing. We vſe it both for the potte and for ſallettes, the talke is better when it is not remoued: you muſt ſowe it but thinne for growing to rancke, and in the middeſt of them, you muſt lay litle cloddes or ſtones, it requireth continuall raking, and maketh better the ground where it growes.

THRA. I marueyle whether you ſolue Purcelayne, ſith it groweth wilde abroade.

Purcelaine.

MARIVS. The Greekes call it ἀνδρόσαιμον, the Latines *Portulacam*, with the Italians it hath the ſame name, in Spanith *Verdolaga*, in Frenche and Dutche *Porchelle*, it is ſowed in Gardens, and well ordred doth growe the better, and ſpreadeth the farther, it hath a blacke ſeede growing in litle greene cuppes.

THRA. Bugloſe that the Greekes call ἀνχουσα, the Latines *Buglossum*, the Dutchmen *Ochſenzung* or *Burretſch*, the Frenchmen *Borage*, the Italians *Boracche*, the Spaniardes *Borax*. Is not this it that I ſee here with the faire blewe flowre, and a ſtalke a foote long, and full of branches?

MARIVS. Bugloſe is at this day with the Poticaries called Boyage, though they differ ſomething in the flowre, and in verie deede they are two ſundrie hearbes, for ſome call the common Boyage, the leſſer Bugloſe, and the greater Bugloſe, is thought to be that which *Dioſcorides* calleth *Circium*, the true Bugloſe, the flowres of both ſortes are vſed in ſallettes, and in wine, becauſe it maketh the heart merrie, and therefore is called in Greeke εὐφροσυνον, that is to ſaye, gladneſſe, the leaues are alſo vſed in dyeing of meates, it is ſowen about Marche, and once ſowen, it will neuer away, there is alſo a wilde kinde of it.

THRA. I praye you goe forwarde, and tell vs ſome thing of Straberries, which here grow with great plenty and beautie,

tie helped as it ſeemeth with good ordering.

MARIVS. They are ſo, for we vſe to bring rootes out of the woodes, which being ſet and planted in the Garden, proſper exceedingly two or three yeares together: and after, we either remoue them againe, becauſe they ware wilde, or ſet the wilde in their places: and ſo haue we them to yelde their fruite twiſe in a yeare, in the Spring, and in the ende of Sommer. And although it groweth of it ſelfe in ſhadowy woods in great plentie, as if it delighted in ſhadowe of Trees, yet being brought into the Garden, it delighteth in ſunnie places, and good ordering, yeelding a great deale more and better fruite: it creepeth vpon the ground without a ſtalke, with ſmall ſtringes comming from the roote, with a white flowre, and a leafe like a Trefoile, indented about. The berries, which is the fruite, are redde, and taſte very pleaſantly, the Dutchmen call them *Erdbern*, the Frenchmen *Freſes*. There is an other fruite that groweth ſomething higher, whoſe berrie is alſo like the Straberie. *Dioſcorides* ſeemeth to call it *Rubus Idæus*, the Bryer of *Ida*, becauſe it groweth in great abundance vpon the mountaine *Ida*. It is not full of prickles, as the other brambles are, but ſoft and tender, full of branches & whitiſh leaues, it beareth redde berries, ſomething paler than the Straberie, and very pleaſaunt in taſte. The Grecians call it Ἐάτον ἴδαιον and ῥόμβον, the Dutchmen *Imberen*, the Frenchemen *Framboiſes*.

Straberries.

Raſpes.

THRA. What is that groweth yonder, a yard in height?

MARIVS. It is commonly called Liquerile, in Greeke ἀμμωνιακὸν, in Latine *Dulcis Radix*, in Italian *Regolitia*, in Spaniſh *Regaliza*, in Frenche *Recliſſe*, in Dutch *Clarits*, or *Saffbolis*.

Liquerile.

THRA. I did not thinke to haue found it here. I heare it groweth very plentifully about the Heine, I would be glad to heare howe you doe order it, for it hath a roote for the ſweetneſſe thereof (whence it taketh his name) very commendable.

MARIVS. It is ſet of yong ſprunges of the roots: as the Poppe is, in drie light ground, and ſimple.

Smal Reazins.

THRA. What ſay you to ſmall Reazins, called in Latine

Ribes

Robes? do you thinke the old writers knew this bush?

MARIVS. That which we call at this day *Ribis*, and the Dutchmen *Saint Iohns pearle*, becauſe about Midſommer it is garniſhed with reed and rich berries, hauing a tarte taſte, quenching thirſt, cheerely, the raging and extreame thirſt of feuers, and coling the ſtomache, which the Apothecaries in Bruges or Yprus keepe all the yeare, is thought was vnknowen to the olde writers: but nowe a common bush vſed for enclosing of Gardens, and making of Borders and Herbers: it will eaſely growe, but that it is ſomthing troubleſome, by reaſon of his ſharpe pickles to be bent about Sommer houſes.

Hoppes.

THRA. You ſpake euen nowe of Hoppes, doe you let in theſe your princely Paradiſes, that plant that is ſo common with the Coudrey man? for about vs they make great gaine of it.

Reade the perfect ordering hereof, in maſter Reynolde Scots booke of Hoppe Gardens.

MARIVS. Tell you therefore, I pray you, howe they do vſe it.

THRA. It is ſet of the yong ſhootes, as you tolde a little before of Liquerice, and that in the ende of Sommer: or if they feare a harde winter, in March. The ſets or ſhootes are cut from the olde rootes, and are ſet in grounde well couered with doung and good mould, and afterwarde hilled, and ſo ſuffered to remaine al Winter. In the Spring, the earth is ſtirred with Rakes, and not with Spades, and the hilles raiſed, and the ground rid of all hurtfull weedes. About Maie, certain powles are ſet vppe, vpon which the Hoppe climeth: all the ſpraye that ſpringeth aboue the flowre, is commonly cut off. About September, or in the ende of Auguſt, the flowers or beis are gathered and kept to make Beere with: when the Hoppes are gathered, the remaines are cutte downe cloſe to the grounde, and the hils being againe rilled, are couered with doung. The toppes, and the yong buds that come firſt out in Aprill, are vſed to be gathered for ſallets, and keepeth them from growing to ranke. But nowe I pray you go on, and returne to the deſcription of your Garden. O what excellent Mellons, Pompens, Cucumbers, and Gourdes haue you here, I pray you tell in what ſort you order them.

MARIVS.

MARIVS. Melons (which some, because they are fashioned like Apples, call Pomes) are of like kinde of Coucumbers, and so are the Pepons, which the Frenchmen call Pompeons. The Coucumbers, in Greeke ... in Latine *Cucumer*, in Italian *Cucumere* or *Cedriuolo*, in French and Dutch *Cocumbre*. They change to Pompeons, and Mulkemillions, from which they onely differ in shape and greatnes: when they erede in greatnesse, they become Pompeons, and when they grow rounde, they are Melonpompeons: all these kindes are called of some writers Melons. The Gréekes call all the sorts, as well Coucumbers as Melonpompeons, by the name of Pompeons and Melons: though there are some that make a difference betweene Pompeons and Melons, neither doe the learned yet throughly agrée vpon these names, nor can it be certainly saide what kinde the olde writers meant by Pompeons, and Melonpompeons. Pompeons doe créepe along vpon the ground with rough leaues and yellow flowre, and are pleasant to be eaten when they be ripe. The sweetest sorte of them they call *Sacrino*, or Mulkemillions. The Melonpompeons are supposed to spring first in *Campania*, being fashioned like Quinces. This kinde hangeth not, but groweth rounde lying vpon the ground, and being ripe, doe leaue the stalke. Some Coucumbers are called *Citrini*, of their yellownesse when they be ripe, and also *Citruli* or *Citreoli*, they growe all in length, and are spotted as the Citrons are: some be called *Marini*, and be called in Italian *Cucussa Marina*, the séede whereof is to be eaten before they be ripe: they are cut in péeces, and porredge made of them, not much vnlike in fashion to the Melon. There is also an other kinde of Coucumber of a huge compasse, almost as bigge as a bushell: the mowers and Harueste folkes in Italie, vse to carrie great péeces of them to the Field with them to quench their thirst. You must set all these kindes in March, the séedes must be set thinne, two sote one from an other, in watrie ground well dounged and digged, specially sandie ground: you must lay them in Milke, or Water and honie thrée dayes: and after drie them and sowe them, so shall you haue them very pleasaunt. They will haue a very

Coucumbers.

sweete

sweete sauour, if their seedes be kept many dates among Rose leaues. Your Cucumbers shall be long and tender, if you set vnder them water in a wood vessell, two handfuls vnder them. They delight in water so much, as if they be cut off, they wil yet bende towarde it, and if they hang or haue any stay, they will grow crooked, as also if you set oyle by them, which they greatly abhorre. The flowers being suffered to growe in Pipes, doe growe a wonderfull length. They loue not the Winter no more than doth the Gourde, whereunto they are almost like in nature, for the flowers, the leaues, and the claspers, are like of them both: but the Gourde is more busie in climming, so that with hastie growth, it spreadeth quickely ouer the herbes and Sommer houses, running vp by the walles, and mounting vp to the very Tyles of the houses, hauing a great fruit of a maruelous bignesse, hanging by a small stalke, in fashion like a Peare, and greene in colour, although when it hath flowred it will growe in what fashion you will haue it: they say, there hath beene some of them nine foote in length. The round ones also growe to be vsed for great vessels: the rinde of the more ones, is soft and tender, but of the old ones hard, whereof when the meate is out, trauailers make great bottels to carry drinke in. The Gourdes that are vsed to be eaten in Sommer, are sundry in shape, some are rounde, some long, some broad: and though the fashion be diuers, yet the nature is all one: for it is made by arte to growe in what shape you will, as in the forme of a creeping Dragon, or what you list, they are called in Greeke πεπονίδια, in Italian *Zuma*, in Spanish *Calabaz*, in Dutch *Kurbisch*, the French *Vne courge*. The seedes that the Gourde beareth next to the stalke (as *Paladius* saith) are longest, they in the middest rounde, and those that lie on the side, short, broade, and flatte: if you set the sharpe ende of the seede downewarde, as *Columella* saith, you shall haue them both greater Gourdes and Cucumbers. It delighteth in a moist, ritch, well doung, and wel watred ground. That which groweth without water, brings the pleasanter fruite, and that which hath water enough, needs the lesse loking to. The flowers where they be set, must be digged a foote and a halfe deepe, the thirde parte

Gourdes.

whereof

where of, must be filled with fat claye, and then with good earth: the middle must be filled with the middell, then the seedes being set, must be watred, till they be sprong, and afterwards laid to them till they grow tall: till the fourth yeare be filled. They must be set in rowes, and so ordered, as commonly we sow in fine or seuen foote beddes. The setting. Those that are set in moyst ground, must be set somewhat further, therefore they do not set by them, and haue not much store of water, but be aduised what is them to do after them. When they be a little growen, they must haue helps set by them to climbe vppon, the longer they be, the better the meate is. You must beware there come no woman nere where you set them, for their presence doth greatly hurt them. Those that you keepe for seede, you must suffer to remaine vpon the stalke till Winter, and then geathering them, and drie them, either in the sunne, or in the smoke, for otherwise the seede will rotte and perish. They will long be preserued and continue fresh, if after they be gathered they be put into a close vessell with the lees of white wine, or hanged in a vessell of vinegar, so that they touch not the vinegar.

THRA. What meaneth that great Thistell that springeth

MARVLLVS. [illegible] Artichoch.

[illegible]

[illegible]

A Thistell is the Yartichoch, that euerie where doeth grow. It is a kind of Thistell, by the diligence of the Gardner, brought to be a good Garden herbe, and in great estimation at noble mens tables: it is as you see framed with a round prickly head, hauing a great sort of flakes set in order steple wise. The Greekes call it σκόλυμον and ἀκανθος the Latines *Strobilum*, because the fruite of it something resembleth the Pineable. The Frenchmen call it *Alticocalum*, of the *Arabick* article *Al*, and *Cocalos* a Pineable, whereof it is corruptly called *Artichaule*,

in

in Italian and Spanish *Cardo*, in Dutch [illegible] in the French name [illegible] *Cardere*, [illegible] called of *Cardus*, a *Cardere*, because in his grasping, he chiefely delighteth in thorns. The leaues [illegible] in March, and the stalke in Iune ensuing: if you will haue it, plant it in the Spring, you must [illegible] much: when vpon it will harde beare the first yeare that you sowe it, the second yeare the stalke will rise and spread and so shall your Artichoch prosper very like and will [illegible]. It loueth good ground and well dunged, and prospereth best in fat grounde. *Palladius* would haue you moreouer, to set the sedes in well ordered beddes, in the encrease of the Mone, halfe a foote a sunder, and not deepe, but taking them in three of your fingers, thrust them downe, til the earth come to the first iointes of your fingers, then couer them tenderly, and water them often, specially toward Sommer, so shall you haue the bigger fruite. When they grow vp, they must be continually weeded and dounged, as I saide with asshes. They say, they will lose their prickles, if the tops of the sede be made blunt vpon a stone before they be set: and sweete they will be, if the sede be laid in Milke. You must keepe them from Mowles and Mise, with Cats or tame Weesels, as *Ruellius* teacheth you. *Athenæus* calleth the stalke of the Artichoch, [illegible], that lieth vpon the ground, and that which standeth vpright [illegible].

THRA. Well, what herbe is yonder same that commeth vp as it were heares, with a blewish woode and pale, hauing in the middest of the bellie as it were, little yellow tongues?

Saffron.

MARIVS. It is Saffron, in Greeke [illegible] in Latine *Crocus*, in Italian and French so, in Spanish *Açafran*.

THRA. What neede we care any more for either *Coricum*, *Sicil*, or *Cyren*, from whence we fetch it with so great charges?

MARIVS. Yea, there groweth great plentie of it in Germanie about *Spire*, and diuers other places, which may compare in goodnesse with any other place. It is set in March of the head that it hath rounde, and in cloues as the Lylie, the Leeke, and the Sea Onyon. *Constantine* affirmeth, that it may be sette of the rote, as soone as the flower is of. The rotes or

the

the heades do so encrease vnder the ground, that of one of them some yeere springeth eight or nine others. In many places they are removed euerie seauenth or eight yeere into better ground, whereby they come againe to be as good, as at the first. In the countries lying about the Rhine, they plucke them vp euerie thirde yeere, and lay them a drying in the sunne till August, and then pulling off the outer skin, they set them again halfe a foote one from the other: the best heades are those that are fattest, and haue little heares, the worst looke rottenly and ill fauouredly, and haue an ill sauour: It delighteth to growe by high waies and neere springes, and to be trode and trampled on, prospering as it were by oppression: it groweth greene all the Winter, it is gathered in *Autumne*, when it is come to his colour, by plucking out the little yellowe tongs from the bell, which are afterwardes dryed three or foure daies together, and well picked and pourged, and so made vp in Boxes: some thinke it best to drye it in the shadowe. It is craftily counterfeited by the Apothecaries, drying it in sodde wine, which they beforeare adding thereto the scum of siluer or lead to encrease the weight, the craft is perceiued by the dullinesse thereof, and by the sauor of the sodde Wine. The proofe of the good is, if it crackle betweene the handes as a brittle thing, which the counterfeit doth not, or if in putting it to your mouth, it cause your eyes to water. Wherefore, the best is that which is newe, and hath a pleasant smell, in colour like to Golde, and dieth the fingers in touching it. In March you must pourge the grounde where it groweth, and whether ye plucke it vp or not, notwithstanding, other hearbes may very well growe there vntill August: Purslaine, Parsley, or such like hearbes doe best growe there. And when the Saffron beginneth to flowre, you must rippe away the other hearbes: for in Haruest time about September or October it floureth.

THRA. Here is great store of Rosemarie, the cheefest beautie of Gardens, and not to be wanted in the kitchin. Rosemary.

MARIVS. Of the ordering of Rosemarie, sith you will haue me, I will speake a little. There are which suppose it to be the same which the Greekes call Libanotis, because it sauoureth

reth like Frankencenſe, in Latine it is called *Roſmarinus*, and in all other tongues it keepeth the name, it ſerueth both for pleaſure and profite. *Theophraſtus* maketh two kinds of it, a barrayne, and a fruiteſull, and is ſet of ſmall ſlippes in Aprill: it is ſette by women for their pleaſure, to growe in ſundry proportions, as in the faſhion of a Cart, a Peacock, or ſuch like thing as they fanſie. It delighteth in ſtonie or rough ground, and in the toppes is the ſéede incloſed in little huſkes whit and round. It flowreth twiſe a yéere, in the ſpring, and in the end of ſommer: it is geathered from May till September, and it is good to pluck of the flowre often, that it may not flower too much. In the higher partes of Fraunce it groweth wild in ſuch plentie, that they vſe almoſt no other fewell: it is in colde Countries in Winter ſet in Sellers and hotte houſes, and is brought againe in the Spring into the Garden. But here you muſt beware, that when you firſt bring it out, you kéepe it from the Sunne, ſetting it in the ſhaddowe, acquainting it by little and little with the ayre: ſome vſe to houſe it with Strawe and Horſe doung, and ſo leaue it in the Garden.

Sauge. Sauge, in Greéke ἐλελισφακος, in Latine *Salvia*, and like in other languages, is an hearbe common in euerie Garden: it is planted both of the ſéede and the ſlippe in March, in many kind of ground, it maketh no matter where: the Gardners vſe to lay burking alles about it, whereby it proſpereth the better.

Mintes. Next to Sauge is Mint, in Greéke μίνθος, in Latine *Menta*, in Dutch *Mynte*, in Italian and French, after the Latine, in Spaniſhe *Yerua buena*: it is planted and ordered in all thing as Sauge is, it proſpereth both in drie, and wette groundes, and groweth well by waters. If you lack ſéedes, you may take the ſéede of the wilde Mint, and ſet them with the toppes downewarde, whereby they ſhall leaue their rankneſſe, and being once ſowen or ſette, groweth

Pimpernel. euerie yéere. Pimpernell, in Greéke, πίμπινον, in Latine *Pimpinella*, is vſed both in the Kitchin, and in Phiſicke, and being once ſowen, groweth euery yéere both in ſunnie places, and in ſhaddowy: it groweth in moſt places wilde.

Hyſop. Hyſope, in Greéke ὕσσωπος, in Latine *Hyſſopus*, and ſo called in moſt tongues in Europe, a common hearbe knowen in euerie Gardner: it deſi-

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ryth, though no Sunnie grounde, yet good and rich ground, it is planted both of the ſeede and of the ſlippe: when it hath once taken roote, it careth not for the ſharpneſſe of Winter. Sauorie in Greeke θύμβρα, in Latine *Satureia*, or as *Columella* ſaith, *Cunila*, in Italian *Coniella*, *Sauoreggia*, *Thymbre*, in Frenche *Sauoreie*, in Dutche *Kruelzwibel hiſop*, groweth in barraine places, and is ſet and ſowed as the plants before. The nexte is that which commonly is called Baſyll, in Greeke ὠκιμον, in Latine *Ocymum*, in French, Italian, and Duche, *Baſilica*: an Herbe that is vſed to be ſet in the middeſt of knottes, and in windowes, for the excellent ſauour that it hath: it is alſo good for the potte: it is ſowed in March and Aprill, and delighteth in Sunny ground, you muſt put two ſeedes ſtill together. Baſyll is beſt watred at noone, whereas all other Herbes are to be watered in the morning and in the euening, it may be remoued in May. *Theophraſtus* ſaith, that it proſpereth beſt, when it is ſowed with curſes. Marierum, in Latine *Amaracus*, and *Maiorana*, is alſo in like ſort vſed, the Dutch and the Italians call it after the Latine, the Spaniardes, *Amoredux*, the French *Mariolaiene* and *Thyn*, in Greeke of *Dioſcorides* and *Paulus Ægineta* σύμπολον, this alſo for the pleaſaunt ſauour it hath, is ſet in pottes and in Gardens: it is ſowed in March three or foure ſeedes together, and halfe a foot a ſunder, in May when it groweth to ſome height as Baſyll, it is remoued. Time neere of kindred to theſe, in Greeke θύμος, in Frenche *Iolian*, and Dutch, like the Latine, in Spaniſh *Tomillo*, delighteth in ſtonie, light, and Sunny ground: it ſpringeth both of the ſeede and of the ſlippe, and alſo of the flowre as *Theophraſtus* ſaith. Theſe three tender and delicate Herbes, are to be ſowed with great heede, either in earthen pottes, or in Garden beedes. Hitherto haue I deſcribed vnto you, ſuch herbes as ſerue for the kitchin, and becauſe the latter ſorts are alſo eſteemed for the ſauours, I will go forward with the deſcription of the reſt that are ſet in Gardens for the pleaſure of them, and for the ſauour, doe garniſhe the ſaide Gardens, and ſerue alſo for other purpoſes. Of Roſemarie, I ſpake before, I will nowe proceede with theſe that grow before my ſeete. Lauender, cal-

Sauorie.

Baſyll.

Marierum.

Tyme.

Lauender. led in Latine *Lauanda*, or *Lauendula*, that groweth in borders about the beddes, in Greeke νευδοναρδον, and keepeth the Latine name in other tongs, doth growe in wilde places and ſtonie: it is ſet of the ſlips, and remoued: it groweth to Spike in June, and in Julie is gathered and tied in bundels for the ſauour, the flower is diſtilled for ſweet waters. Flowergentle, in Latine *Amaranthus*, in Greeke αμαραντος, though it haue no ſauour at all, yet hath it a delightfull beautye to the eie, the Frenchmen for the faireneſſe of the colours, excelling both crimſon and purple in graine, doe call it *Paſſeuelleurs*, the Italians *Fioruelute*, becauſe it contendeth in colour with crimſon in graine, it loueth to be often gathered and plucked, whereby it ſpringeth the better, the flowers after they be dead, with a little water come againe to their colour: it is called *Amaranthus* becauſe it dieth not.

Flowergentle.

Lauender cotten. *THRA.* Here foloweth Lauender cotten.

MARIVS. This Lauendercotten, in Greeke is called as *Plinie* ſuppoſeth χαμαιπιτυαρισσος, as it were the little Cypres, ſome call it *Santonia*, and female Sothernewood, in Dutch it is called *Cypreſſen*, in French *Cyprez*, it groweth commonly in Gardens, ſpringing euery yeere. Myrtell, in Greeke μυρτος, in Latine *Myrtus*, in Italian *Myrto*, in Spaniſh *Arraihan*, in French *Meurte*, in Dutch *Welſcheheidelberr*, the leaues are not much vnlike to the leaues of the Oliue tree, ſomthing ſmaller, with ſlender branches, and leaues growing in order one by another as you ſee, with blacke berries, and leaued like the Pomegranate. It groweth alwaies greene, it is ſet and ſowed both of the ſeede and ſlippe, and the ſtocke: but you muſt ſtill raiſe vp the earth about it, till it be throughly rooted. Some ſowe the berries being a little beaten, and couered in furrows of earth: it delighteth in continuall weeding, ſo groweth it to a handſome height, meete to ſhadowe hearbes: it loueth to be watred with the vryne of men, or of ſheepe. This onely is to be wondred at, that of the liquor thereof alone, may be made all ſortes of Wine & Dyle. *Cato* teacheth to make wine of the berries, being dried, and put in water and honny ſodden together: if they be not dried, they come to Dyle, howe the Wine of them

Myrtell.

is

in mate, *Diſcorides* ſufficiently declareth. *Plinie* reporteth, that *Carmande* three ſortes of Pyrites, white, blacke, and a third kinde that he calleth contugale: it delighteth to growe by the ſea bankes, as *Strauo* ſaith, it groweth at this day commonly in Italie, along by the ſeacoaſtes.

THRA. Oh what ſweete and goodly Gelyflowres are here? Gely-
You may truely ſay, that Salomon in all his princely pompe, flowres.
was never able to attaine to this beautie; ſome of them glitter with a perfect crimſon dye, ſome doth a deepe purple, and ſome with a paſſing beautifull Carnation: I marueile the old writers have ſo nothing of theſe in their time.

MARIVS. There are ſome that ſuppoſe to be a kinde of Cluven betony, whiche the Gardiner fetching out of the field, and tranſlating Cloues into the rootes of them, with diligent planting have brought to this excellency: others thinke it to be called *Veronica* of the Spaniardes, who firſt found it. Some thinke it to be *Oenanthe*, becauſe it flowreth with the Vine: it delighteth in ſomme ſunnie ground, it is ſowed ſeldome of ſeede, but commonly ſette of the ſlippes, as I ſaid of Roſemarie. The Gardeners in the end of Sommer, do take the rootes and ſet them in pannes, pottes, or payles, and when the froſtes come, they carrie them into their Sellers, and in fayre warme dayes bringing them abroade againe, and ſuffer them to be nowe & then wette with the raine. It hath beene often ſeene, that in ſuch vaultes & ſellers, they have flowred all the Winter long, ſtrange to the Gentlemelle of the place: ſome ſet bowes about them, and couer them with ſtraw and Horſe dong, to preſerue them againſt the froſt: it often happeneth, that one roote beareth one fort white flowre & redde, and the third ſpeckled or Carnation.

THRA. Loe, yonder are Roſes growing in Borders, and braue Roſes: do they growe of the ſeede, or of the ſette? Roſes.

MARIVS. Roſes, called in Greeke ῥόδον, in Latine *Roſa*, and in all other languages as in Latine, are diuerſlie planted, ſometime of the Roſes, ſometime of the Braunches, being ſette in ſmall ſettes, and planted a foote a ſunder. Some worthe them in Garlandes, and ſo ſette them to have them ſmell the pleaſanter. The beſt of ſowing of them is beſt: howbeit,

they will very well growe at the ſame, though it be long ere they ſpring, and then ſo ſoone they ſet there ſtalkes a foote in length, it neither delight them in rotten moiſt ground, but in well tempered grounde againſt rubbiſh, and water bankes. The places where they muſt growe, muſt be digged deeper then Coſtus grounde, and not ſo deepe as the Vineyarde: the Roſe is rather a Thorne then a plant, and groweth vpon the very braunches, it commeth firſt out in a little budde and long ſharpe leaues, which after they be opened, are diſtinctly ſeene and ſeuerally abroade, with a yellow berrie ſupporting the middle. Roſes are alſo of ſundry ſortes of them: one ſorte is called *Damaſcena*, hee is bright red and ſtarke colour, an other *Alexandrina*, with white leaues, and *Spinoſiſſima*, the leaſt and ſmalleſt of all: the Damaſcen and the white, are like for leaues and ſtalkes, they differ in ranknes, prickles, colour and ſmell. There are that haue but nine leaues, and others with an hundred leaues, neither good in beautie nor in ſmell: their ſuſtenance of the ſtalke (as *Plinie* ſaith) is a ſigne of the ſauour. There are ſome little pale roſes, called Carnation or Prouince roſes, theſe doe wonderfully growe where they once are planted, and haue a moſt excellent ſauour. Muſke-roſes.

Roſes are vſed to be ſet in Februarie, which is either done with the ſeede, or the ſette planted in little Furrowes. The ſeedes (as *Palladius* ſaith) are not the little yellowe thinges in the middeſt of the Roſe, but the graines that growe within the redde riped Berrie: the ripeneſſe whereof is deemed by the ſwarthineſſe and the ſoftneſſe of the berrie: where they once are planted, they continue long, and after they die, they ſend out newe budde and ſpringes. If you lacke ſettes, and woulde of a fewe haue a great number, take the braunches that begin as it were to ſhewe their buds, and cutting them in ſundrie ſettes, foure or fiue fingers in length, ſet them in good grounde well dounged and watred: and when they be of a yeares groweth, take them vp, and ſet them a foote a ſunder, proine them and trimme them with often digging about them. Roſes muſt ſtill be cut, for the more you cut them, the thicker and the doubler they growe, otherwiſe they will ware ſingle and wilde, it will alſo doe them good ſometime to burne them: being re-

mixed, & springeth very seldome and hard, being sette of sets foure fingers long aforesayde, after the setting of the seuen starres and after removed in a Wilderly wise, and sette afoote a sunne, and often digged. The olde Rosiers muste haue the Earth loked about them in Februarie, and the dead twiggers cutte of, and where they woxe thinne, they muste be sprayed with the young sprongers. To haue Roses of sundry colours vpon one rote, make holes (when they begin to budgen, & the pith beneath in the stocke vnder the ioynt, and fill it with rede colour made of Brasell sod in water, and chalk it in with a cloth, and in the like sort put into an other parte of the stocke grene colour, and into other yellowe, and what other colours you will, and couer the holes well with Oxe doung and Loame, or other good earth. If you will haue your Roses bear at Whitsontimes, make a little trenche two hand breadthes of rounde about it, and powre in hotte water euery day, and thus doing (as Democritus prositeth) you shall haue Roses in Januarie. Yet may preserue Roses before they open, if making a slitte in a Rose, you enclose the budde one, and when you would haue freely Roses, take them out of the Roses: others put them in Earthen Pottes that couered, and set them vnder the Roses continue alwaies fresh that are dipt in the Dregges of Oyle. If you will haue them at all times, you must set them euery moneth, and doung them, and so (as Diphanes saith) you shall haue them continually. To make Roses grow, or other fruite to growe double, put two graines of the same in a Wheate kernell, and so lay them in the ground. If you sette Garlicke by your Roses, they will be the sweeter, the nyger the ground is where they growe, the sweeter they will be, as it appeareth by the season of the yeare, for some yeares they are sweeter then others: the Rose will be sweete that is planted in lusty Gardens, when it beginneth to open amongest all Roses, these are most to be commended, that they call Carnations and Prouinciales. The Oyle of Roses was greatly had in estimation euen in Homers time, and at this day the Vineger of Roses is greatly vsed. Next vnto the Rose in worthinesse, for his beauty and wonderfull whitenesse is the Lillie, called in greeke [illegible] in Latine, Lilium candidum, in Spanishe Lillies.

Spanish *Tirio*, in French *Fleur de Lis*, in Dutch *Lilien*. The Greekes holde opinion, that it sprange first of *Iuno* Milke sprinckled vpon the grounde. In Februarie we beginne to set Lillyes, or if they growe before, to lose the earth about them with a Rake, taking good heede that the young tender shootes about the roote be not hurt, nor the little heades which taken from the olde roote, we set for new Lillyes. As the Rokes are, so are the Lillyes, the sweeter, the dryer the ground is where they growe: Lillyes and Rokes being once set, continue both verie long. There are redde Lillyes made so by arte, for they take the stalkes and rootes of the Lillie, and hang them in the smoke till they wither, and when the knots begin to browne, they are laide in March in the Lees of redde Wine, till they be coloured, and then set in the grounde with the Lees powred about them, so will they come to be purple. Violet in Greeke is [illegible] in Latine *Viola*, Violet blacke, and Violet purple, [illegible] in Italian it is called *Viola porporia*, in Spanishe *Violetta*, in French *Violets de Mars & Careſme*, in Dutch *Violen*: these although they growe wilde about euerie Hedge and Wall, yet are they set in Gardens with other flowres. There are sundry sorts of Violets, both of kinde and colour, but the ordering of them is in a maner all one.

Violets.

THRA. I haue nowe heard enough of Kitchin hearbes and flowres, therefore now, I praye you, let me heare you saye something of the thirde sort, that is Phisicke hearbes, for me seemeth I see a great sorte of healing hearbes here in your Garden.

MARIVS. Nature hath appointed remedies in a readinesse for all diseases, but the craft and subtiltie of man for gaine, hath deuised Apothecaries shoppes, in which a mans life is to be solde and bought, wherefor a little byle, they fetch their medicines from Hierusalem, out of Turkie, while in the meane time euery poore man hath the right remedies growing in his Garden: for if men woulde make their Gardens their Phisitians, the Phisitians craft would sonne decay. You knowe what your olde frende *Cato* saith, and what a deale of Phisicke he fetcheth out of a poore Colwort.

He is but the opinion of a Gardner.

THRA.

THRA. I do remember it, and that he saith he was wont both to helpe himselfe, and his whole familie, with the herbes of this Garden. But what hearbe is yonder with the long stalk, and the long blacke indented leanes on the toppe? If I be not deceiued it is Bearefoote, with whose rote we vse to heale our cattell when they be sicke.

MARIVS. It is so indeede, and is called in Greeke ἑλλέβορος, in Latine *Veratrum*, there are two kindes of it, the blacke and the white: the white, is that which the Dutchmen call *Nyeswurts Wranckraut*, the blacke they call *Kristwurts*, because it flowreth about Christmasse, the Italians, the Spaniards, and the Frenchmen keepe the Greeke name. The rote of this Bearefoote they thrust through the eare, or into the brest of the beast, that is either diseased in his longes, or hath the Murren. *Columella* seemeth to call it *Consiligo*, it groweth not in Gardens, except it be sowed: it continueth long, & loueth cold and woddy ground. There standes, not far from that, an other verie noble hearbe in Phisicke called *Angelica*, it is supposed to be called in Greeke ἀγγέλικος, and whether it be *Myrrhis* with the Latines or no, I leaue that to the Phisitians to discusse: it is called with the Italians, Spaniards, Frenchmen, and Germanes *Angelica*. His rote, because it is a soueraigne remedie against the plague, and hath diuers other good operations, it is cherished in our Gardens, and being once sowed, it commeth vp euery yeere, it groweth also wilde in the mountaine countrey, and flowreth in July and August. Here is also Helicampana, in Greeke ἕλενιον, in Latine *Enula*, in Italian *Enela*, in Spanish *Enula campana*, in French *Aulne*, in Dutch *Alant*, this also is set in our Gardens for medicines sake, and we make much of it for the rote, it groweth wilde in the hilly countries, and drye shaddowy places. In Sommer the rote is taken out of the ground, and cut in small peeces, is dried: at this daye it is called *Enula campana*, it hath a yellowe flowre, a leafe lyke Mullin, but white and hoarie at the one side. Wormewood, though it growe in euery place, yet this that you see here is Romane or Pontike. Wormewood, the Latines call it *Cerephium*, or *Absinthium Romanum*, the Dutchmen *Romische wermut*,

Berfoore or Setterwort.

Angelica.

Helecampanie.

Wormewood.

mut, the Italians *Aſſenſo*, the Spaniards *Encenſos*, the Frenchmen *Aluine* and *Abſince*, this kinde is ſette in our Gardens, and thought to be the beſt. Saume which we haue here alſo in our Gardens, for diuers diſeaſes of cattle, is called in Greeke Σαβιν, in Latine *Sabina*, in Dutch *Senenboum*, in Italian as in Latine, in Spaniſh likewiſe, in Frenche *Saunier*, it hath leaues like Juniper or Cypres, alwaies greene, there are two kindes of it, one like the *Tamariſke*, the other like Cypres: it is a buſhe rather ſpreading in breadth, than growing in height: the berries which he beareth, may be geathered in the end of Sommer, or any other time.

Sauine.

THRA. But many times we ſee Gardens to be deſtroyed with wormes and vermine, what remedie haue you for this?

MARIVS. Of the faultes of the grounde, and the remedie thereof, as the amending of either too much moiſture or dryneſſe, I ſpake in the beginning, touching Wormes, Flyes, and other vermine that annoy the Gardens, which for the moſt part are theſe, Caterpillers, Snailes, Moles, Myle, Gnats, and Antes. There are that ſaie, that if you mingle with your ſeedes Swte, or the iuice of Houſeleeke, or Singreene, the Caterpillers will not meddle with the hearb that ſpringeth of ſuch ſeede, and that they will doe no harme to your Trees, if you ſprinkle them with the water wherein the aſhes of Vines hath beene laide: moreouer the ſtalks of Garlicke made in bundels, and burnt in Orchardes or Gardens, deſtroieth the Caterpillers. They will not breede (as they ſay) if you burne about the Rootes of your hearbes or trees, quicke Brimſtone and Lyme: the ſame they report of Lie made of the Figge tree. Antes will not annoy your Corne or Hearbes, if you encompaſſe it round with chalke, or put into their hils, the aſhes of burnt Snailes, and if ſome of them be taken and burnt, the reſt will not come neare the ſauour: if *Aſſa fœtida* be laid in Myle, and powred vpon their hilles, it vtterlie deſtroyeth them: they will not touch the trees nor the hearbes, if you annoynt the ſtalkes with bitter Lupines, or lime laid with Myle. You muſt ſhake of the Caterpillers in the morning, or late in the euening when they be numbed: alſo water wherein Dill hath been ſodden, caſt about

Againſt Caterpillers.

in the Orchard when it is colde, destroieth them. It is written, that if you set Chiches about your Garden, Caterpillers will not breed, and if they be alreadie bredde, you must seeth the iuyce of Wormewoode, and cast among them. The doung of Bullockes burnt vpon the coales, destroieth Gnates, the like also doth brimstone: a Spunge wet with Vineger and hanged vp, draweth also swarmes of Gnates vnto it: also the maw of a Sheepe newe killed, not washed nor made cleane, if it be laide in the place where Mothes, or other such Vermine do vse, and couered a little the vpper part, you shal after two dais, finde all the noysome Vermine crept into it: thus must you do twise or thrise, till you thinke you haue destroied them all. Of killing and driuing away Moles, *Sotion* the Greeke writeth, that you must take a Nut, of any like fruit, and making it hollowe within, fill it vp with Chaffe, Rosen, and Brimstone, afterward stop the vent holes that the Mole hath in euery place, that the smoke breake not out, onely leauing one open, where you shall lay the Nut, in such sort as it may receiue the wind on the backe part, that may driue the smoke into the Mines. There are also trappes to be made, for the destroying of Moles: a frame is to be set vp vpon the newe Hilles, with a peece of wood so hollow and framed, that it may receiue (as it were in a Sheath) an other peece of woode made in fashion like a knife, to this is ioined an other little sticke that lieth in the hole, and is fastned to a Catche without, that as sone as the Mole toucheth the sticke within, she is taken presently, as it were with a paire of Sheares. Mise are taken, if ye powre into a Platter, the thickest mother of oile, and set in the house a night, as many as come at it, are taken: also the rote of Bearefote mingled with cheese, bread, floure, or grease, killeth them. Tarte and very sharpe Vineger mingled with the iuice of Henbane, and sprinkled vpon the Hearbes, killeth the Fleaes, or little blacke wormes that be in them. No kind of vermine will annoy your Hearbes, if you take a good sort of Creuises, and cast them in an earthen vessell with water, suffering them to worke abrode in the Sunne for the space of ten daies, and after with their licour, sprinkle your Hearbes. But I keepe you long in this

Gnattes.

mothes.

Moles.

Myse.

Garden Fleae.

il

il fauoured Garden, if it pleaſe you we will walke into the Orchard adioining.

Of Orchards.

THRA. With a verie good will, although the goodly faire colour and ſweete ſauours of theſe hearbes and flowres, beſide the fayre hedges enclofing it as it were with a gorgeous greene tapeſtry, make me that I could abide here euer.

MARIVS. Both the Garden and the Orchard are incloſed with ſeuerall hedges and ditches, whereby they are defended from hurtfull beaſts and vnruly folks (as I told you at the firſt) when I began to ſpeake of the enclofing of Gardens and Orchards.

THRA. Euery thing liketh me paſſing well: God Lord what a pleaſant ground, what a Paradiſe is this? me thinkes I ſee the Orchards of *Alcinous*, the trees are ſet checker wiſe, and ſo ratred, as lokе which way ye will, they lye leuell: King *Cyrus* himſelfe neuer had better. If *Lyſander* had euer ſeene this Orchard, he would haue wondred a great deale more, then he did at *Cyrus* his Orchard.

MARIVS. Such gorgeous Gardens and Orchards as Princes haue, I neither deſire, nor meane to counterfeyte: but vſing the diligence of a poore Countrey Gardner, I builde (as they ſay) my walles according to my wealth. I framed the order, and ſette the moſt part of theſe trees with mine owne hands, following herein, the fathers of the old time, who delighted themſelues chefely with this kind of Philoſophie. So then (as I thinke) the Trees and Woodes to be the greateſt commoditie giuen to men: for beſides the houſe pleaſure that they miniſter vnto vs, the gracious Lord, that is the giuer of all good things, hath alſo geuen vs a number of other goodlie commodities by them, which at the firſt ſerued men for foode, couering, and clothing: which commodities, the very Ethnicks had in eſtimation. But vnto vs that knowe God, by whome we haue receiued our preheminence aboue all other creatures, which benefite we ought with thanks to acknowledge, the holie Scripture doth teach a more higher and myſticall conſideration: for before that gracious Lorde had framed man, willing to prouide him of foode and apparell, he cauſed all kinde of

pleaſant

pleasant trees bearing fruite to spring out of the earth, that they might serue for the sustenaunce of man: and in the midst hye planted the Tree of lyfe, and thereby, the Tree of knowledge of good and euill, to the end that *Adam* might haue an assured signe of his dutie and reuerence towards God, out of which the Lorde (as in a Temple did speake vnto *Adam*) and *Adam* himselfe, if he had continued in his innocencie after his refection of the Tree of life, had with his posteritie preached GOD, and alwaies beene thankfull vnto him, for his authoritie giuen vnto him ouer al other creatures, as the Prophetical Psalmist singeth. This that therefore the bountifull liberalitie of God was giuen vs to so good an ende, the vngodly and wicked posteritie turned to idolatrie, consecrating both Trees and Groues, to the idols of the Heathen.

THRA. What? me thinkes you begin to play the Preacher with me.

MARIVS. Surely, there is no better a place to preach in then here, to acknowledge the Creator in his creatures, and by these visible workes, to beholde the Almightie and euerlasting power, blessednesse, bountifulnesse, and Godhead, of the incomprehensible workman, and alwaies to speake and preach of them: but I will say more hereafter. The planting of Trees doth out of all doubt (as I saide) bring vnto vs both profite and pleasures: and therefore this part of husbandry, must not be neglected, for *Columella* accounts it one of the chiefest points of husbandry, which the Poet seemes to agree vnto.

Of tyllage all this while, and of the starres
We here haue talked,
And Bacchus now of thee I meane to sing, &c.

THRA. I praye you then declare vnto me, the order of planting and preseruing of Trees.

MARIVS. Let vs first sit downe vnder the shadowe of this faire Vine, that yeeldeth both pleasant Wine, and comfortable shadow.

THRA. Agreed.

MARIVS. The sorts of Trees are diuers and manifold; some growe wilde, some come of the seede, some of the rote, as

the

the ſelfe ſame poore faith.

Some ſorts there are, that of the ſeede are ſowne.
And ſome that ſet of rootes, to ſeedes are growne.

Some doe growe and ſpring of themſelues: a number of others againe are to be ſowne. Thoſe that growe wilde without the labour of man, doe beare their ſeedes each one accoꝛding to his kinde: but thoſe that are ſet and dꝛeſt, doe yeelde greater encreaſe. There are diuers againe that are alwaies gréene, and doe neuer loſe their leafe, which are (as *Conſtantine* repoꝛteth) theſe, the Date, the Oꝛenge, the Lemon, the Cytron, the Bay, the Oliue, the Cypꝛeſſe, the Pine, the Hollie, the Boꝛ, Myꝛtill, Ceder, and Juniper. As foꝛ ſtrange Trées, and thoſe that will growe no where but at home, we will not meddle withall: we will theꝛefoꝛe begin firſt with thoſe that yéelde vs ſuſtenance, and beare fruit, and thoſe are diuided into thꝛée ſoꝛtes: foꝛ either of the ſettes they come to be Trées as the Oliue is, oꝛ elſe ſhꝛubbes as the wilde Date, oꝛ neither Tꝛée noꝛ ſhꝛubbe as the Vine.

THRA. I deſire to heare your opinion of euery ſoꝛt, foꝛ I thinke it no ſmall ſkill to plant ſuch faire Gardens, Oꝛchaꝛds, and Vineyards. We thinkes you haue vſed a woonderfull good oꝛder, that amongſt your Vines, you haue entermedled Oliue trées, Figge Trées, Almondes, and Abꝛecocks, and that you haue ſeuered your Oꝛchaꝛd from your Garden, and your Vineyaꝛd from them both, with faire hedges and ditches.

MARIVS. It was needefull ſo to doe, leaſt my folkes labouring in ſome of them ſhould come into the reſt, contrarie to my pleaſure. Firſt if you will, I will ſpeake of thoſe that bꝛing vs fruite, and then of the wilde, and the oꝛder of ſetting and planting of Woodes. Firſt (as our *Columella* ſaith) that ground that ſeꝛueth foꝛ an Oꝛchaꝛd, will ſeꝛue foꝛ a Vineyaꝛd, as you ſée it doth here: and if the ground be hilly, rugged, and vneuen, it is moꝛe méete foꝛ a Vineyaꝛd then foꝛ an Oꝛchaꝛde. If theꝛefoꝛe you will make an Oꝛchaꝛde, you muſt chooſe ſuch a ground as is méete foꝛ it: a rich grounde, leuell, and lying vpon the Sunne, which when you haue founde, you muſt well enclooſe it, as I taught you befoꝛe in the enclooſure of Gardens,

Howe to make an Orchard.

that

that it may lie out of daunger of Cattell and knaues: for although that the trampling, and dounging of Cattell, is not vnprofitable to the Trées, yet if they be either brused, or broken whiles they be yong, they will soone come to nought. When you meane to dresse your Orchard place thus fenced, you shal make your furrowes a yere before you plant them, so shall they be well seasoned with the Sonne and the raine: and what soeuer you plante, shall the sooner take. But if you will needes plante the same yeere, that you make your furrowes, let the furrowes be made at least two moneths before: after fill them full of straw, and set it on fire. The broader and wider that you make your furrowes, the fairer and more fruitefull will your trées be, and the fruite the better. Your furrowe must be made like an ouen, or furnace, wider at the bottome than aboue, that the roote may spread the better, and the cold in winter, and the heate in Sommer, may the better be kept from it, and also in steepe grounds, the earth shall not so easely be washed away. In setting of our fruite trées and Vines, you must place them in order, either Checkerwise, or Netwise: which needfull order of setting, is not onely profitable by receiuing the aire, but also very beautifull to the eie: when as, which way soeuer you looke, you shall see them stande in ranke, and which also is to good purpose, the Trées shall equally receiue their moysture from the ground.

THRA. I see the Gardners in euerie place obserue this order, setting their Trées in such proportion, as which way so euer you looke, your eye shall not be let, but shall see the Trées stand streight in order.

MARIVS. I haue vsed two sortes of this catred order, one wherein my Trées stand foure square like the Chequer or Chesseboord: the other not in square as the first, but losingwise or Diamonde wise like the glasse windowes or Nettes. You must frame it according to the nature of the trées, lest the lower sort be drowned of the higher. You must also set them a good distannce a sunder, that their branches may spread at pleasure, for if you set them to thicke, you shall be able to sowe nothing betwixt them, and they wil be the lesse fruitfull. Therefore Pa-

ladius

Iadius would haue the ſpace betwixt them, fortie foote at the leaſt: there is more profite in the generall diſpoſing of them, entermedling the greater with the leſſer, ſo as the greate ones do not annoy their vnderlings, either with their ſhaddowe or dropping, for that they growe not equall to them in ſtrength or bigneſſe. Pomegranates and Myrtles muſt be ſowed nearer togeather, as nine foote a ſunder, Apples nearer than they, and Peares nearer than them both, but of them there are ſundrie ſortes, Almonds and Figge trees, muſt alſo be ſet nearer.

Dropping of trees.

Friendſhip amongſt trees.

And becauſe there is a naturall friendſhip and loue betwixt certaine trees, you muſt ſet them the nearer together, as the Vine and the Olyue, the Pomegraniate and the Myrtell. On the other ſide, you muſt ſet farre a ſunder, ſuch as haue mutuall hatred among them, as the Vine with the Filbert & the Bay. There are ſome of them, that deſire to ſtand two and two togeather as the Cheſtnut: the droppings alſo do great hurt of all ſortes, but ſpecially the droppings of Okes, Pinetrees, and Mallholmes. Moreouer, the ſhaddowes of diuers of them are hurtfull, as of the Walnut tree, whoſe ſhadow is vnholſome for men, and Pine tree that killeth young ſprinkes: yet they both reſiſt the winde, and therefore are beſt to be ſet in the outer ſides of the Orchards, as hereafter ſhall be ſaide. Of the place and the order, perhaps you thinke I haue ſaid ynough: and loke that I ſhould proceede to the order of planting and ſetting.

Shaddows of trees.

Time of planting.

THRA. What time is the beſt for planting and ſetting of trees.

MARIVS. The cheefeſt time of planting (as *Florentine* ſayth) is the end of Sommer, for then is nature moſt occupied about the roote, as in the ſpring about the vpper partes: and therefore grafting is meeteſt in the Spring, and ſetting in the ende of Sommer: for the plants are watered all the Winter, and therefore it is beſt ſetting or planting, from the ſetting of the ſeauen ſtarres, vntill the twelfth of December. In the ſpring tyme, you may ſette thoſe thinges that you forgatte before, at what ſeaſon ſoeuer it be: loke that you ſet them in the afternoone, in a faire weſterly winde, and in the wane of the Moone.

Time for graffing.

Plinie

Plinie saith, that this note is of greate importance for the encreaſe of the Tree, and goodneſſe of the fruit: If the Tree be planted in the encreaſe of the Moone, it groweth to be verie greate: but if it be in the wane, it will be ſmaller, yet a great deale more laſting. The obſeruation of the Moone

THRA. But are there more waies then one of Planting and ſetting.

MARIVS. A great ſorte: we plant either by Graffing, ſetting of the kernell, or the ſtons, ſetting the rootes, ſtockes, or ſlippes, grafting betwixte the barke and the Tree: ſome are planted in ſome of theſe ſortes, others in all. In Babilon (as they ſay) onely the leafe ſette, comes to be a Tree, firſt I will ſpeake of Graffing, and then of the reſt. There are that appoint but three kindes of Graffing, betwixte the barke and the woode, in the ſtocke, and emplaſtring, or inoculation. The firſt ſort they cal Grafting, the ſeconde imbranching, the thirde inoculation, or imbudding. Such Trees as haue thickeſt barkes, and drawe moſt Sappe from the grounde, are beſt Graffed betwixte the barke and the wood, as the Figge, the Cherie, and the Oliue: thoſe that haue thinne rindes, and content themſelues with leſſe moiſture, as if the Sappe leauing the barke, ſhould gather it ſelfe to the hart, as the Orenge Tree, the Apple Tree, the Vine and diuers others, in theſe it is beſt to open the ſtocke, and Graffe in the woode. The kinds of planting and graffing of Trees. Three kinds of Graffing. What trees are beſt to be graffed betwixt the barke and the woode.

Some Trees are alſo beſt Graffed vpon other ſome, the Figge that proſpereth beſt vpon the Mulbery ſtocke, and the Plane Tree: the Mulbery vpon the Cheſtnut, and the Beeche, the Apple, the Peare, the Elme and the white Poplar, wherein if you Graffe, you ſhall haue your Mulberies white: vpon the ſame ſtocke are Graffed the Peare, the Quince, the Medler, and the Bernille: the Peare vpon the Pomgranate, the Apple, the Quince, the Mulberie, and the Almon. If you Graffe your Peare vpon a Mulberie, you ſhal haue redde Peares: the Apple is Graffed vpon all Peare ſtockes, and Crabbe ſettes, Willow, and Poplar: being Graffed vppon the Quince, it bringeth forth the frute which the Greekes call *Melimela*: it is alſo Graffed vpon the Plomtree, but being Graffed vppon the Plane Tree, it bringeth forth redde Apples. What trees agree beſt together. To haue red Peares & Apples.

The Medlar being Graffed vpon the Thorne, the Graffe groweth to greate bigneſſe, but the ſtocke continewes ſmall: vpon the Pine Tree, it bringeth a ſweete fruite, but not laſting. The Peach Graffed in the Thorne, or the beeche, groweth to be verie faire, and greate: the Almond and the Peach being ioyned together, and Graffed in the Plomtree, will beare a Peach with an Almonde in the ſtone. The Filbert will onely be graffed in the Wilding, not agreeing with any other. The Pomegranate delighteth in diuers ſtockes, as in the Willowe, the Bay, the Aſhe, the Damſon, the Plome, and the Almond, vpon all which he proſpereth well. The Damſon groweth very well vppon any kind of wild Peare, Quince, and Apple: The Cheſtnut liketh well the Walnut and the Beech. The Cherie refuſeth not the companie of the Peach, nor the Turpentine, nor they his: the Quince will well be graffed vpon the Barberie: the Mirtle vpon the Sallowe: The Plom vpon the Damſon: the Almonde vpon the Filbert: the Citron, becauſe of his tender Tree, and thinne rinde, will ſcarſely beare any other graffe, and therefore contentes him ſelfe with his owne branche. The Vine that is graffed vpon the Cherie Tree (as *Florentinus* promiſeth) will beare Grapes, and Graffed vpon the Oliue, will bring forth a fruit, that bearing the name of both his parentes, is called *Elæokaphides*. Finſine, all young Trees that haue ſappe in the barke may be Graffed: if it be greater, it is beſt Graffing nere the Roote, where both the barke and the Wood, by the reaſon of the nerenelle of the grounde are full of Sap. He then that will graft either in the ſtocke, or betwirt the ſtocke & the rinde, let him gather his graffes from a fruitful tender tree, and full of ioints, and out of the new ſpring, except he mean to Graffe an olde tree, when as the ſturdier the graffes be, the better they are, otherwiſe the laſt ſhootes of ſuch trees as haue lately borne will be the beſt. You muſt gather them on that ſide the tree that lieth vpon the North, others like better the Eaſt ſide, then the ſhaddowie. *Virgill* forbiddeth thoſe that growe vppon the top, thinking them better that growes out of the ſide. To be ſhorte, your Graffes muſt be full of buddes lately growne out, ſmoth, the rinde ſmoth, good, and readie to growe: they muſt

A Peache with an Almonde in it.

a graffed on barbery.

Olyue grape.

The choiſe of graffing.

must be of the laſt yeres growth, which is knowne by the knottes or ioyntes, that declare euery yeres growth: Beſide, Graffes of all Trees are not to be gathered alike: for Vines and Figge Trees are drieſt in the middle partes, and take beſt of the top, and therfore from thence you muſt gather your graffes: Oliues are fulleſt of Sappe in the middeſt, and the outer parts dryeſt. Thoſe beſt agree together, whoſe rindes are neereſt of Nature, and doe bloſſome, and beare both about a tyme. You muſt gather your Graffes in the wane of the Moone, tenne daies before you Graffe them. *Conſtantine* addeth this reaſon, that it is neede the Graffe doe a little wither, that he may the better be receiued of the ſtocke. You muſt appoint your Graffing time in the Spring, from March, when as the buddes doe begynne to burgen, but not come out (although you may Graffe the Peare when his leaues be out) vntil May: for graffing in raine is profitable, but not for imbraunching. The Oliue, whoſe ſpringes doe longeſt budde, and haue much Sappe vnder the barke, the aboundance wher of doth hurt the Graffe, muſt be Graffed (as *Florentine* ſaieth) from May, till June. *Columella* woulde haue the Oliue Graffed from the twelfth of March, till the firſt, or ſirth of Aprill, and the time of Graffing to bee the Moone encreaſing, in the afternoone, when there bloweth no South wind. When you haue found a good graffe, take your knife (being very ſharpe) and pare it about a three fingers from the ioint downward, ſo much as ſhall be meete to bee ſette in the ſtocke: that part that is vnder the ioynt (not periſhing the pith) you muſt cut with your knife, as if you ſhould make a pen, ſo as the wode with the wode, and the barke with the barke, may ioine togither, as iuſt as may be. Which being done, if you meane to graffe the ſtocke, you muſt firſt ſawe it ſmoth, and then cleaue it in the middeſt with a ſharpe knife, about three fingers: and to the ende you may handſomely put in your Graffe, you muſt haue a little wedge of wode or Iron, (*Plinie* thinkes it better of bone) which wedge (when you wil Graffe betweene the rinde and the ſtocke) muſt be made flatte on the one ſide, and rounde on the other, and the Graffe muſt be pared alſo flat on that ſide that muſt ſtande next the wode, ta-

The knots.

The time for graffing.

The manner of graffing.

king alwaies good heede, that the pith be not periſhed: The other part muſt onely haue the rinde pulled of, which after you muſt ſette in the cleſte, or betwirt the barke, til you ſee all parts agree together. Some doe cut the point of their Graffe three ſquare, ſo as two ſides are bare, and the other couered with his barke: and in that ſorte they vſe to Graffe in a ſtocke one againſt another, but it is thought beſt to Graffe no more but one. When you haue thus ſet in your Graffe in the ſtock, pluck out the wedge: but here is a great carefulneſſe, and heede to be vſed. And therefore good Grafters, thinke it beſt to holde the Graffe euen with both hands, leaſt in the binding and pulling out of the wedge, the Graffe be hurt, or ſtande vneuen. For auoiding of which, ſome vſe for to binde the ſtocke about, and after to put in the wedge, the bands keeping it from opening to wide. The harder they be ſet in, the longer will they be ere they beare, but will indure the better: you muſt take heed therefore, that the cleft be not to ſlacke nor to ſtrait. When you haue thus Graffed, binde the ſtocke with a twig, and couer it with loame, well tempered with chaffe, two fingers thicknes, and (putting moſſe round about it) tie it vp ſo, that there come no raine at it, nor be hurt with the Sunne or the Winde. This is the order both in the olde time, and at this daie vſed: though in *Columella* time (as it appeareth) they were not wont to Graffe, but onely betwirte the barke and the Wood, for the olde people (as *Plinie* writeth) durſt not as yet meddle with cleauing of the ſtocke: At length they preſumed to make holes, and Graffe in the pithe, and ſo at laſte ſhared bold to cleaue the ſtocke. *Cato* would haue the ſtocke couered with claie and chalke, mingled with ſande, and Dre doung, and ſo made in morter. Sometime they Graffe with the toppe of the Graft downewarde, and they doe it to make a little Tree ſpreade in breadth. It is beſt Grafting nere the grounde, if the knottes and the ſtocke will ſuffer: and *Plinie* would haue the Graffe grow forth not aboue fiue fingers. If you will graffe a little Tree, cut it neere the grounde, ſo as it be a foote and a halfe hie. If you would carrie your Graffes farre, they will longeſt keepe their ſappe, if they be thruſt into the roote of a Rape: and that they will be preſerued,

To keepe your grafs.

and if they be perwrite two little gutters, running out of some River, or fishe ponde, and be well rouged with earth.

THRA. I do nowe greatly desire to heare you saie some thing of emplaistering, or inoculation, that is, in Grafting with the budde or the leafe, which you call in Greeke ἐμφύτευσις, which kinde of Grafting, I see those that are geuen to newe fashions delight much in. Of implastering & inoculation.

MARIVS. This is no newe maner of Grafting, but we find that it was vsed both of the Latines, and of the Greekes, when taking of a leafe or little budde, with some parte of the rind with him, we Graffe it into an other branch, from which we haue taken as much barke. This order (*Columella* saith) the husbandes in his daies were wonte to call emplaistering, or inoculation: and before *Columellas* daies, *Theophrastus* in his booke De causis Plantarum, doth shewe the reason of inoculation. *Plinie* doth saie, it was first learned of Dawes, hiding of seedes in caues and holes of Trees. Whatsoeuer of Grafting, as *Cyrenicus* doth write, and our Countreyman Lelius confesseth, is best to be vsed in Summer, about the twelft of Iuly: yet *Democritus* saith, he hath Grafted in this maner, and hath had good increase with it in the spring time. And if it be the daintiest kinde of Grafting, it is not to be vsed in all Trees, but onely in such as haue a strong, a moiste, and a supple rinde, as the Peare, the Peach, and the Fig, which are full of sappe, and haue a large barke. Whatsoeuer tree you meane to Graffe, chuse the youngest and the fayrest twigges you can, and in them take the budde that is likeliest to growe, and marke it with a knife round about, and slaie of the rinde, taking good heede you hurte not the budde, and take out the pyth. Afterwardes, go to the tree that you meane to Graffe in, and chuse likewise the fairest branches, and pare away the rinde a little space, and ioyne in your budde as nie as the rindes may ioyne together so close, as neither Waters nor Wormes may enter in. Remember also that you hurte not the Wood, and that the rindes be of one thickenesse. When you haue this done, binde it vp, so as you hurte not the budde. When they are all,

bearing liberall enough for the bodye. Cutte of all the spring that groweth about it, and there be nothing lefte to drawe awaie the Sappe, but that it may onely serue the Graffe: After one and twentie daies, vnlose it, and take of your couering, and you shall see your budde incorporated in the branche of a strang Tree. Columella speaketh of another sort of Grafting, to bore a hole in a Tree with an Augur, either to the pithe, or the vtter-moste rinde, going something sloapewise downward, and getting out all the chippes cleane, take a Vine, or an arme of the best Vine, not cutte from his old mother, and paring awaie the ouer rinde, thrust it fast into the hole being all moiste and full of Sappe, leaning a budd or two onely vpon it after warde, stoppe the hole well with Mosse and Clate, and commit it to the earth. In this sorte may you Graffe Vines vppon Elmes, so shall the branch liue, being both nourished by his olde Mother, and his newe Father. Two yeere after, you shal cutte of the newe grafted branch, and the stocke wherein you Grafted, you shall saw of a little aboue the boring, so shall the Graffe become the cheefest part of the plante. The like do our Countrey men, taking a branch of a Beech a foote thicke: And when they haue cutte it, and bored it, they sett in it the branches of the best Peare or Apple that they can gette, setting the same in a very wette ground in March, and in the same Moneth the yeere after, taking vp the Beech, they cutte it in sunder with a saw, betwixt the holes and the braunches: And euery piece of stocke with his braunche they sett vnto very rich and fat ground. Thus are there many kindes of an other kinde of Grafting, not much vnlike to the former, where of notwithstanding Palladius in Constantine maketh mention, as touching a Peach. They will a man to take the branch of a Willow of a bigness your arme, and two Cubites in length, or more if that may be had, and to bore it through the middes, and after lopping of the braunches of a Peach tree the standerd, leaning onely the top vntouched, they would haue you to make the Peach passe through the Willow bathe, and that done, to bolte the Willow like a Wicket, setting both his endes into the earth, and so to binde vp the hole with Mosse, Wooll, and Lindē Barke, after when as the braunches of the Peach haue

Wimble Graffing.

An other maner of Graffing.

ioyned

toyned handfaſt with the pith of the Willow, that both the barkes are bared one: You ſhall ſtitte the Tree beneath, and ſo mowe it, and raiſe it vp with earth, ſo as you couer the Willowe bowe with the toppe of the Peach: and this ſhal bring you peaches without ſtones. This kinde of Graffing muſt be done in moyſte places, and the Willowes muſt be holpen with often waterings, that the nature of the Tree may be of force. The kindnes and maners of propagation, are declared by *Plinie*, who telleth of two kindes: the firſt, wherein a braunch of the Tree being bowed downe, and buried in a litle furrow, and after three yeares cut off, and the plant in the third yeere remoued: which if you entende to carry any farre diſtaunce of, it is beſt for you to burie your braunches in baſkettes, or earthen veſſelles in which you may eaſily carry them. And an other more delicater way he ſpeaketh of, which is to get the Mote out of the verie Tree: laying the braunches in baſkettes of earth, and by that meanes, obtaining Rootes betwixte the very foote and the toppes (for by this meanes the rote is fetched from the verie toppe, ſo farre they be ſtumped from thence) ſtitch them, doing it as before: in which ſorte you may alſo deale with Walnuttes and Beuthes. *Columella* ſheweth many, how Slippes of all manner of Trees may be Graffed in what Trees you liſt.

Propagation and his kindnes.

THRA. And ſome are alſo fet of the ſlips, or ſliuinges: I my ſelfe haue plucked a braunch from a Mulberie Tree and bruſing the ende a little with a mallet, haue ſet it in the ground and it hath growen to be a faire Tree: The like hath bene tried (as they ſay) in apples and peares.

MARIVS. You ſaye well, for Nature hath ſhewed vs, that the yong ſciences plucked from the rootes of the trees will growe: the youngeſt are beſt to be planted, and ſo to be pulled vp, as they may bring with them ſome parts of their mothers roote. In this ſorte you may plant Pomegranates, Filbertes, Apples, Peruilles, Medlars, Plomes, Figges, but ſpecially Vines, and ſometimes Cheries, and Mirtelles. Of the ſtocke and the braunches are alſo planted the Almonde, the Peare, the Mulberie, the Orenge, the Vine, the Quince, the Iuie, and the Turkiſh Plane: which the oftener you remoue the better they

they grewe. *Plinie* saieth, the braunches rut from the Tree, wer eat the moste comely vsed for Hedges, Elder, Quinces, and Peares medled together, afterwardes for wer, as the Poplar, the Alder, and the Willowe, at this daie we set them where we will like. Heede must be taken, that the sockes, or the sets be of a good kind, not crabbed, knottie, nor forked, nor slenderer, then that a man may well gripe with his hande, nor lesse then a foote in length.

THEAT. Forthwith now, that you speake of the setting of the fruite or kernell.

MARIUS. Nature (as *Plinie* saieth) hath taught us to set the kernell, by the sedes deuoured of Birdes, and moiste ned with the warmth of their entrailes, and after voided in the boughes and trees of Trees: whereby we finde many times a Plume Tree growing out of a Pere, a Pere out of a Cherrie, and a Cherrie out of a Willowe. Many Trees are sette of the fruite, kernell, or stone, which growe yerely of themselues, by reason of the falling of the fruit: as Chestnuttes, Hasselnuttes, and Walnuttes. *Columella* saith, they are the fruitfullest Trees that spring of their fruite, then those that are set of the sprete, or the braunch. Some delight to be set in Hedges, and not in the ground: when they haue no sede of their owne, they lyue in a straunger. Of the fruit or kernell, are planted Nuttes, Almonds, Pistaces, Chestnuttes, Damsones, Plumes, Pineapples, Dates, Cipresse, Bayes, Apples, Peares, Maples, Filtrees, Cheries, Peaches, and Abricockes: But sette or planted, they prooue to be the kindlier. Some of these doe growe in Graffing and other wales: for experience teacheth, that the Nut and the Terebinth are Graffed, and *Democeron* witnesseth as much: neither are all fruites, kernelles, and stones set in like sort, as hereafter shall be seene; Some are laide in water before, others not: some lie three daies in Hony and water, and at the fal of the leafe, are buried in the ground till March: and these set Nuttes are onely laide in moiste mould a day before, and of some in water and honie onely a night, least the sharpnesse of the hony destroy the sprote. Some are sette with their toppes standing vpward, as the Chestnut: others downward, as the Almonds,

The keeping of plants.

though

though this is not greatly to be regarded, sith we see the fruits that falles from the Tree, or is let fall by Birdes, doth prosper best of any other.

THRA. I haue a wonderfull delight in the Impe Gardens of these Countries, I pray you tell me how they be ordered.

MARVS. The ordering of an Impe Garden may not be passed ouer, wherein as in a Parke the yong Plantes are nourished. And because the Nurse sometimes ought to be kinder, and tenderer than the Mother, a meete grounde must be chosen for the purpose: that is, a grounde drie, fat, and wel laboured with the Mattocke, wherein the straunger may be well cherished, and verie like vnto the soile, into which you meane to remoue them. The kernels, or stones, must not be altogether naked, but a little couered with some part of the fruites, so shall they afterward endure the longer. They must be sette a foote, or thereabouts a sunder: After two yeares they must be remoued. And because their Rootes do runne very deepe into the grounde, they must be somewhat bent, or turned in: to the ende they may spreade abroade, and not runne downward. Aboue all things, you must see it be free from stones and rubbish, wel fenced against Poultrie, and not ful of chincks or clefts, that the Sunne burne not the tender rootes: they must be set a foote and a halfe a sunder, that they hurt not one the other with their neere growing. Among other euils, they will be full of Wormes, and therefore must be well raked and weeded: beside, growing ranke, they must be trimmed and proined. *Cato* woulde haue them couered ouer with Hattules vpon forkes, to let in the Sunne, and to keepe out the cold: Thus are the Kernels of Peares, Pineapples, Nutten, Cypresse, and such others cherished. They must be gently watered for the first three dayes, at the going downe of the Sunne, that they equallie receiuing the water, may open the sooner. *Ziziphi*, or Turkey Plomes, Nuttes, Walnuttes, and Chestnuttes, Bayes, Cheries, Pistaces, apples, Nutes, peares, maples, firres, plomes, and diuers others, are sette of the stone, or kernelles. In remouing of them, haue speciall regard, that they be set in the

Of Impe Gardens.

like

like ſoile, or in better, not from hot and froward grounds, into cold and backwarde, nor contrarie from theſe to the other. You muſt make your Furrowes ſo long before, if you can, that they bee ouergrowne with good mouldе. *Mago* wouldе haue them made a yeere before, that they may be well ſeaſoned with the Sunne, and the weather: Or if you cannot ſo, you muſt kindle fires in the middeſt of them two Moneths afore, and not to let them, but after a ſhowre. The depth of their ſetting muſt be in ſtiffe claie, or hard grounde, three Cubites: and for Plome Trees a handfull more. The Furrow muſt be made Furnaſe like, ſtraight aboue, and broade in the bottome: and in blacke mouldе, two Cubites and a hand broad, being ſquare cornered, neuer deeper than two foote and a halfe, nor broader then two foote broade, nor neuer of leſſe depth, then a foote and a halfe, which in a wet ground will drawe neere the water. Such as delight in the deapth of the grounde, are to be ſet the deeper, as the Aſhe, and the Oliue: theſe and ſuch like, muſt be ſette fower foote deepe, the others it ſufficeth if they ſtande three foot deepe. Some vſe to ſet vnder their Rootes rounde little ſtones, both to contein, and conueigh away the water: others lay grauell vnderneath them. The greater Trees are to be ſet toward the North and the Weſt, the ſmaller toward the South and the Eaſt. Some will haue no Tree remoued, vnder two yeere old, or aboue three: and others when they be of a yeeres growth. *Cato* reſiſteth *Virgilles* authoritie, that it is to great purpoſe, to marke the ſtanding of the Tree, as it grewe at the firſt, and to place it towardes the ſame quarters of the heauen againe. Others obſerue the contrary in the Vine, and the Figge tree, being of opinion, that the leaues ſhall therby be the thicker, and better defende the fruit, and not ſo ſone fall: beſide, the Figge Tree will be the better to be climbed vpon. Moreouer, you muſt beware that by long tarying, the rootes be not withered, nor the winde in the North when ye remoue them, wherby many times they die, the huſbande not knowing the cauſe. *Cato* condemneth vtterly all maner of windes ſtorms in the remouing of Trees, and therefore it is to great good purpoſe, to take them vp with the earth about them, and to couer the rootes with a turfe,

turffe, and for this cause *Cato* would haue them to be carried in baskettes filled with earth vp to the toppe: the Tree must so be sette, as it may stand in the middest of the trench, and so great heede must be taken of the rootes, that they may not be broken, nor mangled.

THRA. Lette vs nowe go forward with euerie Tree in his order.

MARIVS. Among all Trees and plantes, the Vine by good right chalengeth the Soueraignetie, seeing there is no plant vsed in husbandrie more fruitefull, and more commodious then it, not alonely for the beautifulnesse, and goodlinesse of the fruite, but also for the easines he hath in growing, whereby he refuseth not almost any kinde of Countrey in the whole worlde, excepte such as are too extremely skorched with the burning heate of the Sunne, or els too extremely Frozen with the behemente colde, prospering also alwell in the plaine and champion Countrey, as it doth vpon the Hillie and Mountaine Countrey: Likewise as well in the stife and fast ground, as in the softe and mellowe grounde: And oftentimes in the Loamie and leane ground as in the fatte and foggie, and in the drie, as in the moiste and Mirie, yea, and in many places, in the verie Rockes it groweth most abundantlie and most fruitefullie, as is to be seene and proued at this date about the Riuer of Rhine in Germanie, and the Riuer of *Mosell* in France: and aboue all this, it best abideth and beareth the contrary disposition of the heauens. The Vine

THRA. No doubte it is the most excellent Plante: but whom doe you suppose to be the first auchour of the Planting of it: The common sorte doe attribute first inuention of it to *Bacchus*.

MARIVS. We that are taught by Gods holy worde, doe knowe that it was first founde out by the Patriarke *Noah*, immediatly after the drowning of the worlde: It maie be, the Vine was before that time, though the Planting and the vse thereof, was not then knowen. The Heathen both most falsely, and verie fondelie, as in many other thinges, doe giue the inuention of the same vnto the God *Bacchus*. The inuention of the Vine.

But

But *Noah* liued manie yeeres before either *Bacchus*, *Saturnus*, or *Vranias* were borne.

THRA. It is moſt likely ſo: But I would faine knowe, whether the planting of Vines doth more enriche the Husband, then other Husbandries doe.

MARIVS. About this queſtion there is no little adoe among the writers of olde, where there are ſome that preferre Grafting, Tilling, and Woodſales farre aboue the Vines: and yet againe there wantes not great and learned men, that affirme the Vine to be moſt gainefull: as declareth that old fruitfulneſſe of the Vines, mentioned by *Cato*, *Varro*, and *Columella*, which vpon euery Acre yelded 700. Gallondes of Wine, and the Vineyardes of *Seneca*, wherin he had yerely vpon one Acre 1000. Gallondes: when as in Corne ground, Paſture, or Woodland, if a man do getie vpon one Acre xx. s. a yeere, it is thought a great matter.

The vineyard moſt gainfull.

THRA. But the Vine aſketh great charges, and greate trauaile about it, and it is ſubiecte to many miſhappes, as the cold Froſtes of Winter, the blaſtes and burning of Sommer and from the firſt appearing, till the third of Maie (which is the laſte decretozie daie of the Vine) the hurte of the cold and froſt is feared. When it hath eſcaped this danger, then commeth a greater miſchief, which lightly euery yeere doth great harme: for either with blaſtes in the Dogge daies, or for lacke of raine, the Grapes are withered and ſpoiled, or els with ouermuch Raine they ware ſowre, and not ripe. Sondrie other miſhappes there happen, that the Vine is ſubiecte to.

Corne feeld and vineyards cõpared.

MARIVS. I graunt: ſo is your Corne likewiſe, for both it aſketh great charges, and ſuch caſualties oft times vndooeth the poore Husbande. For in all kinde of Husbandry, if there be not great diligence, and good skill imployed, there will be but ſmal cõmoditie reaped. And eſpecially the vine requireth great husbandry about it, for it is tender, and ſone harmed, and therfore in choiſe of the Vineyarde, there muſt bee good heede, and both the nature of the Countrey, and the diſpoſition of the Heauens to bee well conſidered. Moſt men plant their Vines without any great care, or heede of them: and when they growe vp,

vse little diligence in the trimming of them, by which negligence, many times they wither before they be ripe. Others againe thinke it makes no great matter, what ground they bestow about it, and most tymes laye out for this purpose, the worste grounde they haue, as though it would serue for this plant that will serue for no other thing. Some againe reape all the commoditie they can the first yeres, not prouiding for farther time, and so complaine, that their gaines doth neither answere their trauaile, nor their charges, whereas indeede their owne follie and negligence is the cause: for if there be diligence and paines bestowed vppon it, as *Columella* prooueth by many reasons, there is no husbandry so profitable, as the planting of vines.

THRA. I doe not denie but that there is great profite in it, where the ground is meete for vines, and not so fit for corn: otherwise I thinke of sowing of Corne to be an easier matter, and readier way to enrich the husband.

MARIVS. Surely as touching the easinesse of the husbandrie, and the greatnesse of the gaine, the olde writers haue euer preferred the Vineyarde afore the Corne fielde: for as *Columella* reporteth *Siserna* writeth, that the labour of one man is sufficient for eight acres of vines, or at the least for seauen: of the increase I haue spoken before.

THRA. Marie sir at this day one man thinkes three Acres to much for him: but not to trouble your talke, I praie you goe forward with the husbandry of your vines.

MARIVS. The ordering of the Wine bearing vines, as the sorts of vines are sundry, neither can they be confined in certaine numbers, for there is as many sortes, as there is of grounde. *Homer* giueth the chiefest praise to the Wine of *Maronia*, and *Pramnium*, *Virgil* most commendeth Rhenish wine: others the wine of *Aminia*, *Lamentiana*, *Candy*, and *Corsega*, but I mean to speak of those that are commonly in our vse. In Italy at this day they make most account of wine of *Corsega*, *Romam*, and *Mesina*. In Spaine the chiefest extreme wine of S. Martino, of *Rhodari*, and *Giberalter*. In France the greatest praise is giuen to the Wine of *Orleans*, *Anjou*, and *Grenes*,

Germanie

Germanie began but of late to meddle with planting of vines, for *Varro* writeth that the Frenchmen, and Germaines had in his time bothe Vines, and Olives: but at this day the *Rhine*, the *Necker*, the *Mene*, *Mosel*, and *Danow*, may compare with any Countries, for goodnesse of their Vines.

THRA. I see that the Vines are diuersely dressed otherwise in Italie, then in France, and otherwise in France, then in Germanie, euery Countrey vsing his seuerall fashion.

MARIVS. True: for as *Plinie*, after *Columella*, teacheth the Vine may be planted fiue sundry waies: for either his branches are suffered to runne in safetie vpon the ground, or else without any stay growe vpright, or hauing a stay or a prop set for them, they climbe vp by it, or else run vp by a couple of such props, called of *Iuga* a yoke, or else sustained with fower of those yokes, which of the resemblance that they haue with the hollowe gutters of a house, are saide to be guttered: Others againe suffered to runne vppon frames like Arbers, seruing to sit vnder, and are called Arber Vines: Others runne vp by the walles of houses. Moreouer, the yoked Vines, called in Greeke ζευγαμπελοι, are tyed together, and ioyned with three or fower proppes, as if they were yoked: some doe let them runne vppon Trees, as commonly in *Lumbardy*, they are suffered to climbe vpon Elmes, Willowes, and Ashes, where they greatly prosper: neither do they like all manner of Trees, for they hate the Nut Tree, the Baye, the Radish, and the Coll: as againe they loue the Poplar, the Elme, the Willow, the Figge, and the Olive Tree. They Vines that are yoked, or staied vp with props, receiue more aire, and beare their fruit the higher, and ripe the better, but aske more trouble in the loking to: and these are so ordered, that they may be plowed, whereby they are the more fruitfull, because they may the oftner, and with the lesse charge be tilled. The Vines that creepe vpon the ground, make much wine, but not (as *Columella* saith) so good.

Trees which be friends or foes to the Vine.

THRA. Now to your ordering of them.

MARIVS. First, I will speake of the ground, and of the digging of it, and after of the planting, and cutting of them. And first you must take for a speciall note, that euery Vine will

The ordering of Vines.

not

not agree with euery place, nor yelde his Wine in like goodnesse, of such sorte is the quality of the aire, neither will all kind of ground serue: For *Columella* doth counsaile to sette the Vine in a wilde grounde, rather then where Corne or bushes haue growne: for as for olde Vineardes, it is moste certaine, they are the worste places of all other to sette newe in, because the ground is matted, and as it were netted with the remaines of the olde Rootes: neither hath it lost the poyson of the rotten and olde stinking Rootes, where with the soile (glutted as it were with Venime) is benommed. And therefore the wilde and vntilled ground is chefely to be chosen, which though it be ouer growne with shrubbes and Trees, may yet easilie be ridde. If such wild ground be not to be had, the best is the plaine champion land without Trees: if neither such a ground, then the light and thinne Bushie ground, or Olive grounde. The laste and worste (as I saied) is the old rotten Vineyard, which if necessitie compell you to take, you must first ridde the ground of all the olde rotten rootes, and then couer it either with olde doung, or with the newest of any other kind of manneringe: the Rootes being thus digged vp, must be laied vp together, and burned. After must the grounds be considered, whether it be mellowe and gentle: It is thought to be good, that is something greedie and gravelly, and full of small pebles, so that it be mingled with fatte mould withall, which if it be not, is vtterly disalowed.

What ground is best for the Vine.

Dame Ceres ioyes in the ruddie ground, and *Bacchus* in the light, You shall perceiue it to be mallie and thicke: if being digged, and cast into the hole againe, it riseth ouer & it scarcely fill the hole, it is a signe that it is light and thinne. The Flint by the generall consent of husbandmen, is counted a freend to the Vine, specially where it is well couered with good mould: for being cold and a keeper of moisture, it suffereth not the Rootes to be scalded with the heat of Sommer: so much, that *Columella* doth will men to laie certaine stones about the sides of the Vinetrees, so that they exceede not the weight of fiue pounde a peece: which as *Virgill* hath noted, keepes awaie the water in Winter, and the heate in Sommer.

Hurle

Hurle in the thrifty ſtone, or therein throwe the naſtie ſhelles. So doe we ſee the bankes of the Rhine being full of theſe ſtones, to yelde an excellent good wine: but the ſtones that lie aboue ground, are to be caſte awaie: for in the Sommer being heated with the Sunne, they burne the Vine, and in the Winter they hurt them with their coldneſſe, contrarie to thoſe that lie in the bottome. But the beſt of all is the ſote of an hill, which receiueth the falling mould from the toppes: or the valle, that with ouerflowing of Riuers hath beene made richt. Neither is Chalkie ground to be refuſed, though the Chalke of it ſelfe that Potters vſe, is hurtful to the Vine. The hongry Sandie ground, the ſalte, bitter, and thirſtie ground, is not meete for the Vine: yet the Blacke and Reddiſh Sand, medled with ſome moiſte earth, is of ſome allowed well yenough. Moreouer, neither grounde too hotte, or too colde, too drie, nor too moiſte, too ſclender, nor too ſtife, that will not ſuffer the raine to ſincke, as meete is to be vſed for Vines, for it will eaſily gape and open, whereby the Sunne comming in at the crauneſſes, doth burne the rootes: That againe which is ouer thinne, letting in as it were by ventes by Raine, the Sunne, and the Winde, doth drie vp the moiſture of the rootes: The thicke and ſtiffe ground is hardly to be labored, the fatte grounde ſubiecte to too much ranckeneſſe, the leane ground to barrenneſſe: wherefore there muſt be an euen temperature amongeſt theſe extreamities, as is required in our bodies, whoſe health is preſerued by the equall medley of heat and cold, drieth and moiſture, fulneſſe and emptineſſe, or thicknelle and thinnes: Neither yet is this temperature in grounde for Vines ſo inkly to be eſteemed, but that there is required a more enclining to the one parte, as that the earth be more hotte then cold, more drie then moiſte, more ſubtill then groſſe, ſpecially if the ſtate of the Heauens agree againe, in what quarter whereof the Vineyarde ought to lie, it is an old controuerſie, ſome like beſt the riſing of the Sunne, ſome the Weſte, ſome the North, *Virgill* miſliketh the Weſte: others againe thinke the beſt lying to be vpon the South. But in generall it is thought beſte in cold Countries, to haue it lie toward the South, in warme countries vpon the Eaſt, in hotte

What quarter of the heauen the Vine muſt lie againſt.

burning

burning Countries, as *Ægypt* and *Barbarie*, vpon the North. *Mine* would haue the Vine himselfe stand towards the North, and his spring, or shoote, towardes the South. A fitte ground, and well lying, being founde out, must be diligently digged, dounged, and weeded: all vnprofitable weedes must be pulled vp, and throwen away, least they should spring againe, and either corrupt the young plants, or hinder the laborer.

THRA. Before you come to trenching, I would gladly heare in what sort you plant your Vine, and what season is fittest for it.

MARIVS. I will first speake of the season, and afterwards of the planting. The Vine is planted according to *Virgils* rule, in the fall of the leafe, but better in the spring, if the weather be rainy, or colde, or the ground be fatte, champion, or a watrish valley: and best in the fall of the leafe, if the weather be drie and warme, the grounde dry and light, a barraine, or a rugged hill. The time of planting, in the spring (as *Columella* saith) endureth fortie daies, from the Ides of Februarie, vntill the *Æquinoctial*: and in the fall of the leafe, from the Ides of October, to the Kalendes of December. *Cassian* in *Constantine* being taught by experience, willes in watrie grounds you should rather plant in *Autumne*, when the leaues are fall, and the plants after the Vintage, deliuered of the burden of their clusters, sound and strong, before they be nipped with the frosts, for then they best agree with the ground, nature applying her selfe wholly to the nourishing of the roote. The time of graffing *Columella* saith, is of some extended from the first of November, to the first of June, till which time the shoote or graffe may be preserued: but it is not well liked of him, who rather would haue it to be done in warmer weather, whē the winter is past, when both budde and rynde is naturally moued, and safe from colde, that might annoy either the Graffe, or the Stocke: yet he granteth (when neede requireth) it may be done in the fall of the leafe, inasmuch as the temperature of the aire, is not much vnlike to the spring: for which purpose, you must chuse a warme day, and no winde stirring. The Graffe must be rounde and sounde, not full of pith, but of buddes, and thicke of ioyntes, the tenant

The time for planting of Vines.

Graffing of Vines.

What Graffes to be chosen.

whereof muſt not exceede three inches, and ſmoothe, and euen cut: the ſtocke and the cleft muſt be well cloſed with Clay and Moſſe. Thoſe that grow toward the South, muſt be marked, which *Virgil* obſeruing ſaith.

But on the barke, they alſo note the quarter of the ſkie,
The order how it ſtood, and grew, and where the South did lie.

The like is to be done with all other Trees. Of planting of Vines, there is two waies, the one of the Roote, the other of the branch, or ſpray: the Roote is counted a great deale better then the branch or ſet, by reaſon of the forwardneſſe, and vantage that it hath, in that it hath already taken roote. The roote is ſet in ſtiffe grounde, well digged and laboured, in a trench of three foote, the ſet or ſpraye, in a gentle and mellowe ground: in drie ground, it is neither good to ſet the Roote, nor the Branche in a dry ſeaſon: it is beſte to plante in the fall of the leafe in a hot ſeaſon, and in a colde and moiſt, in the Spring: in much wet you muſt ſet them thinner, in great drieth, thicker: in what ſort you ſhall make a froze Garden for Vines, *Palladius* teacheth you. The ſet requireth a time to roote, and being remoued will beare the better fruite. The rootes doe beare fruite the ſeconde yeare, or ſooner: the ſettes, or branches, ſcarſe in the third or fourth yeare, though in ſome places ſooner. *Didymus* in *Conſtantine*, teacheth an eaſie and a readie way of planting the Quickeſet, which is, to take of a ſtrong and tenue yeare Vine, the longeſt and tendreſt branch, that groweth loweſt, a foot from the ground, and laying it along in a Trenche of a foote deapth, to couer it with earth the ſpace of foure ioyntes, ſo that remaine in the toppe, exceede not two or three iointes: and if the branche be ſo long, as it will ſerue for two burnings, you may make there of two rootes. You muſt not ſuffer two rootes to runne vppe vpon one ſtay, but allowe euerie roote his ſupporter. The Branches or ſettes that you meaning to plant, you muſt cut from a verie fruiteſull and flouriſhing Vine, that hath borne ripe and perfect good fruite, full of ioyntes, and not any waies fainted, but whole and ſounde. Of ſuch you muſt chooſe your ſettes, and

not

not of yong Vines, that are weake and feeble, but such as are in their chiefe state. Moreouer, you must gather your set, not of the highest, nor the lowest, but from the middest of the Vine: the sette must be rounde, smoth, full of knottes and iointes, and many little burgeons. Assone as you haue cut it off, loke that you sette it: for better doth it agree with the ground, and sooner growe. If you are driuen to keepe them, burie them in the grounde either lose, or losely bound: and if the time bee long that you meane to keepe them, you must laye them in emptie barrelles, strawing earth vnder them, and vpon them, that the earth may lie round about them: and the barrell you must stop closely with claie, that there enter neither winde nor aire, so shall you preserue them two moneths in their goodnesse. Such as are ouer drie, you must laie them in water foure and twentie houres afore you set them, and you must set two sets together, that though the one faile, the other may take: and if they both growe, you may take vp the lesser of them: you must not make a medley of sundry sortes, specially white and blacke together: but as *Columella* saith, must sort them severally. You must beware, that the sets haue not put out their springes, and that you set not a withered set. *Constantine* would haue the sette somewhat crooked, affirming that it will the sooner take roote. You must lay about them three or foure stones, and then raise the earth, that it may equally with the doung be troden downe: for the stones keepeth the earth firme, and as I saide before, coleth the roote. Both the endes of the set you must annoint with Dre doung, for the killing of the wormes: as for the length, if it be full of ioyntes, it may be the shorter, if it haue fewe ioyntes, you must make it the longer, and yet not exceeding a foote in length, nor a shaftman in shortnesse, the one for being burnt with ouer drinesse in Sommer, the other least being sette to deepe, it be with great hardnesse taken vppe, but this is for the leuell ground: for vpon hilles, where the earth still falleth, you may haue them a foote and a hande breadth in length. *Florentine* woulde not haue the trench lesse then foure foote in deapth: for being sette shallowe, they soner decay, both for the want of sustenance, and great heat of the Sunne, which

The length of the sets.

is thought to pearce foure foote into the ground: though some there be that thinke three foote sufficient for the plant. The Trenches for Vines, *Virgil* would not haue verie deepe: but deeper a great deale for Trees. Such Vines as you meane shall runne vpon trees, you must plant three cubites distant from the Tree: afterwardes, when they be well growen, and neede to be ioyned with the Tree (which you shall perceiue by his thicknesse) you shall laie it downe in length, and burie it, till it come within a foote of the Tree, suffering the remaine to go at libertie, nipping of all the buddes with your nayle, except one or two, that it may the better prosper, which when it is growen vp, you must ioyne by little and little to the Tree, that it may rest vpon it: which part of the Tree must be diligently proyned, and the sprynges and sciences, that growe out of the roote, must according to *Florentinus*, be cut cleane away. The trees, as much as may be, must be forced to the East and the West, and both the tree and the Vine, must haue the earth well digged, and dounged about them. In rich ground, you may suffer the trees to growe in heigth, but in barraine grounde they must be pulled at seauen or eight foote, least all the substance of the earth be soked vp of the tree. After your planting, you must digge the ground euerie Moneth, and weede it, specially from the first of March, till the first of October: euerie thirde day you must digge about the yong plants, and plucke vp the weedes, specially the Cralle, which except it be cleane plucked vp and cast away, though it be neuer so well couered, will springe againe, and so burne the plants, as they wil make them both foule, and withered: the oftner you digge them, the more good you doe them. When the Grape beginnes to alter, you must in hand with your third digging, and when it is ripe, before noone when it wareth hotte, and afternoone when the heate decreaseth, you must digge it, and raise the dust, which doing, defendeth the Grape both from the Sunne and the mist. According to *Virgils* mind, the Vine must be digged and weeded euerie Moneth: some would haue them digged all the Sommer long, after euerie dealwe: others againe will not haue them digged, as long as they budde, or burgen, for hurting the sprynges, saying, that

The ordering of Vines after their planting.

Of digging & dounging of Vines.

it

it is enough to digge them thrise in the yere, from the entring of the Sunne into *Aries*, till the rising of the seuen starres, and the Dogge. Some againe woulde haue it done from the vintage before Winter, and from the Ides of Aprill before it take, and then againe before it flowre, and likewise before the burning houres of the day: in some places when they haue digged them, they do not straight waies couer them, but suffer the trenches to lie open all the Winter; in wette and rainy places they couer them soner, closing vp the Rotes with earth, and stopping all the passages of the water. Some make the trenches very deepe, and some not passing a foote deepe: and when they haue done, they couer them aloft with Oxe doung, Sheepes doung, or hogges doung, or of other cattell: Pigions doung is the hottest, and such as causeth the Vine tattell to growe, but maketh the worser wine. The doung must not be laide close to the Vine, but a little distant from it, whereby the Rotes that spreade abroad, may haue some helpe of it, and the doung must not touch the Rotes, for breaking of them: if there be no dounge at haude, the stalkes of Beanes, and other pulse, will well serue the turne, which both defendeth the Vine from frost and cold, and keepes them likewise from noysome wormes: the kernelles, and the stalkes of the Grapes, doe likewise supplie the want of doung, but the best of all, is olde stale wine. The plants of a yere, or two yere olde, and so forth till fiue yeres, must bee discretely digged and dounged, according to their state: in sandie grounde, the best doung is of Sheepe and Goates, and in such sort you must digge the ground, that the earth that lieth highest, be cast to the bottome, and that which was at the bottome, be laide aloft: so shall that that was drie by the moysture within, be helped, and that which was moist and stiffe by the heate aboue, be loosened. You must also see that [illegible]

What doung is best for Vines.

Where the dung must be laide.

Pisse the best dung.

The order of digging or stirring the ground.

[illegible]

and trench about two fote depe, and three fote broad, according to the rule of *Socion*. Of those Vines that climbe vppon Trees, you must likewise cut of the springes that runne among the Rotes of the Tree, least the small Rote tangled with the greater, be strangled: and therefore you must leaue some little space betwixt the vine and the tree. Often digging causeth great fruitfulnesse: gode heede must be taken, that the plantes be not hurt in the digging: also it must be digged before his florishing, or shooting out of his leaues, for as immediatly therewithall he beginneth to thrust out his fruite. So he that diggeth after the comming forth thereof, loseth much fruite with the violent shaking, and therefore must digge the timelier. Cutting and dressing of the Rotes, you must begin in hand with at the Ides of October: so that they may be trimmed and dispatched afore Winter. After Winter, digge about the Rotes that you haue dressed: and before the Sunne enter the *Æquinoctium*, leuell the Rotes that you haue trimmed. After the Ides of Aprill, raise vp the earth about your Vine: in Sommer let the grounde be oftentimes harrowed. After the Ides of October (as I haue saide) before the colde come in, you must dresse the Rotes of your Vines, which labour laieth open the Sommer springes, which the good husband cutteth away with his knife: for if you suffer them to grow, the rotes that grow downe will perishe, and it happeneth that the Rotes spread all aboue, which will be subiect both to colde and heate: and therefore what so euer is within a fote and a halfe, is to be rutte of, but so, as you hurt not the principall. [illegible] Dressing of Vines.

[illegible]

not be plowed, for breaking of them, but the earth a little loced with a Mattocke, and when you haue thus drest the rote, laye doung about it. After this ridding of the Rotes, then followeth proyning, or cutting, whereby the whole Vine is brought to one twigge, and that also cut within two ioyntes of the earth: which cutting must not be in the ioynt, but betwixt the ioyntes with a slope cutte, for auoyding the water: neither must the cut be on that side that the bud comes out of, but on the contrarie, least with his bleeding he kill the budde. *Columella* appoynteth two seasons for the cutting of Vines, the spring, and the fall of the leafe, iudging in cold countries, the cutting in the spring to be the best, and in hotte Countreyes where the Winters be milde, the fall of the leafe: at which time both trees and plants, by the diuine and euerlasting appointment of God, yeld vp their fruite, and their leafe. Yet must not your settes be two nearely cut, except they be very feeble: but the first yeere they be set, they must be holpen with often digging, and pulling of the leaues monethly while they beare, that they may growe the better. *Pamphilus* in *Constantine* declareth the time of cutting, or proyning, to begin in February, or March, from the fiftenth of Februarie, till the twentieth of March: some (he sayeth) thought good to cut them immediatly after the geathering of the Grapes, least by bleeding in the spring, they lose their sustenance: though being cut in the fall of the leafe, it springeth the soner in the spring, and if the cold of frost happen to come, it is spoiled. Therefore in cold Countreys, it were better to proyne it a little, then to cut it throughly, that is, to suffer the principall springs, and branches to growe. Againe, it is verie necessarie to cut them in the spring: the cuttes must be made with a very sharpe knife: that they may be smothe, and that the water may not stand in them, to the engendring of wormes and corrupting of the Vine: you must cut them rounde, so will the cut be soner growen out againe: but *Plinie* would haue them slope wise, for the better auoyding of the Water. The branches that be broade, olde, crooked, or wrythen, cut awaye, and set young and better in their place. You must make an end

of December, till the Ides of Ianuarie: you muſt not touche your Vines with a knife, for *Columella* witneſſeth, that Vines in Winter may not be cut. In cutting, remember well to cut it betwixt two ioyntes, for if you cut it in the ioynt, you ſpill it: let the cut be alwaies downewarde, ſo ſhall it be ſafe both from ſunne, and weather. You muſt not cut them very early, but when the ſunne hath dranke vp the froſt, or the deaw, and warmed the branch: the ſprings of the ſettes the firſt yeere, muſt be cut with good diſcretion, nor ſuffered to growe too ranke, nor cut too neare, but making the olde ſet to ſuffer a ſpring or two to growe out. Next vnto cutting, followeth the propping, or ſupporting of the Vine: and it is beſt for the young and tender Vine, not to be ſtayed vp with any ſtrong ſtay, but with ſome ſmall thing at the firſt, and whyle it is young, it muſt be dayntely tyed to the ſtay, with ſmall twigges of Willowe, Elme, Broome, Ruſhes, or Strawe: this latter binding, is thought to be beſt, for the twigges when they ware drie, do pearce and hurt the rynde. There is an hearbe, which becauſe of his aptneſſe for tying of Vines, the *Sicyllians* call [illegible]. The beſt ſtayes for Vines as *Plinie* ſayeth, are made of Wyllowe, Oke, Reede, Iuniper, Cypreſſe, and Elder. And in an other place, he preferreth the Cheſtnut for this purpoſe, above all the reſt. The beſt for the Vine, is the Reede, which will endureth fyue yeeres: gelding of the leaues, and cutting the Vine, is almoſt in one maner. The gelding of the leaues, or branches, muſt be done twiſe a yeere, to the ende that the ſuperfluous ſprings and leaues may be plucked off. The firſt (as *Plinie* writeth) muſt be done within ten dayes after the Ides of May, before the Vine beginne to flowre: for about the tenth of June, both the Vine, and Wheate, the two noble fruites, do flowre. Of the ſecond time, the opinions are ſundrie, for ſome ſuppoſe it beſt to plucke off the leaues and branches, as ſone as it hath left flowring: others, when the fruite is full ripe. The ſuperfluous ſprings beeing yong and tender, are to be taken awaye, that the Vine may be more at liberty, and throughly blowen with the Winde. This gelding, or cutting away the ſuperfluous branches and leaues, is as needefull as the propping: for both

Propping of Vines.

Gelding, or plucking off of leaues.

the fruit doth prosper the better, and the propping the more you shall do it hereafter, and the time shall be the more full of gaine: for that industry is nothing grieuous and tenderneth the labourer: and the fourthlier recouer himselfe, and the Grape ripeth the better. Neede makes me fuse the time beginneth to flowre, for that your gelosie in this fact not onely appeareth vnripened, both on the toppes, and must be found great in the stocke and where the shiftes growe, strike off the toppes of the branches, and ye doing you make such Grapes as growe towards the South, or the West, leaue them their branches to defend them from the heat of the Sunne: but rather shall from the young Vines, for vnderhanging them, till the heate of the Sunne begineth to relent, alway in the meane time for hindring the Grapes of their ripening and while the Grape is a colouring, busie your selfe with digging about it. Such Vines as with thicknesse of their leaues ouercloth their fruite, are to be ridde of their superfluous leaues, a moneth before the gathering of your Grapes, that the sunne may the better through them: but the leaues that growe aloft in the very top, must needes be vnpitied, because they do defend against the heat of the Sunne: but if so be the sunne of Grapes be growen to much ranke, and that the Grapes shall in greatnesse, then hardly pluck off the leaues from the top of the Vine.

Ioh. Rob. You haue told vs of great deale of labour about Vines.

ARIVS. The Vinekeeper must needes gee about his Vines, and set vp his propps, and make euen his paths.

THEA. One thing I praie you, before we depart, the Grapes will be ripe shortly, and I vnderstand, we may not be suffred to gather them to come, and vtterly lingring after they be ripe without great labour.

MARIVS. You say true: for hasting gatherers before they be ripe, they will neuer thriue, and not be vendable. And againe, if you suffer them to long, you shall not only hurt the Vine with the weakning bearing of her burden, but also if haile or frost happen to come, you put your vine in great danger. Therefore watch that the Grape entirely in his ripe-

not

not aboue fiue daies, and therefore the iudgement of his ripenesse, is not alonely to be giuen vppon the sight, but vppon his taste, though *Columella* thinketh there can be no certaine iudgement giuen of the taste. But if the stones doe change their colour, and bee no longer greene, but be almost blacke, it is a signe the Grape is ripe. Some againe doe presse the Grape betwixt their fingers, and if they see the stone to slippe out smoth, without any thing cleauing to it, they thinke them meete to bee gathered, but if they come out with some part of the Grape, cleauing to them, they count them not to be ripe. Others proue them in this sort: out of a very thicke cluster they take a Grape, and as they behold the cluster well, wherein they see no change, they take it for a token of ripenesse. You must gather your Grapes, the Mone being in *Cancer, Leo, Libra, Scorpius, Capricorne*, or *Aquari*, and vnderneath the earth.

THRA. Is there no way to make the Grape ripe speedely?

MARIVS. *Plinie* teacheth, to rubbe ouer the knotes with tart Vineger, and very old wine, and thus to be often digged, and couered.

THRA. What order haue you for preseruing of your Grapes, when they be gathered?

MARIVS. Some keepe them hanged vp in the roofe of Chambers, and some in earthen pots close couered with wodden vessels. *Paladius* sheweth a way howe to keepe them vppon the Vine, till the Spring.

THRA. I pray you proceede with the other fruite trees of your Orchards.

The Oliue.

MARIVS. Among other fruite trees next vnto the Vine (as *Columella* saith) the cheefe place is giuen to the Oliue, in Latine *Olea* in Greeke ἐλαία. Of all other plantes it requireth least trauaile and charges, where as the Vine requireth most: and though it beare not euerie yeere, but euerie other yeere, yet is he to be borne withall, because he asketh neither cost nor labour: and if you bestowe any vpon him, he recompenseth it throughly, with the abundance of his fruite. And since there is so great profite and commoditie in this tree, and that the vses of it are so many, and so needefull, it is good reason

ſon to be diligent and carefull about it: he loueth a ground neither too hie, nor too low, but rather the ſide of a hill, ſuch as is the moſt part of Italie and Spaine: for in ſuch ground, the extreme heate of the Sunne, is ſomthing mollified with the cold blaſtes of the winde: for in Oliue Trées (as *Plinie* ſaith) the ſoile, and the clime, is of great importance: it delighteth in a warme, and a dry aire, and therfore in *Barbary*, *Sicil*, *Andaluſia*, ſundrie partes of Italie, ſpecially *Campania*, it proſpereth wonderfully: it liketh not too great heate, nor too much colde. And therefore in hotte countries, it toyneth vpon the North ſide of the Hilles, and in colde, vppon the South ſide. It is thought, that if it ſtand aboue threeſcore Miles from the Sea, that it either dyeth, or proueth not fruitefull. The beſt ground is the gravelly ground, hauing a loft a little Chalke mingled with ſand: it is alſo good ground where the ſand, or gravell, is medled with rich moulde: yea the ſtiffe grounde, if it be rich and liuely, doth very well agrée with this trée. Chalkie grounde is vtterly to be refuſed, and watry and marſhe ground, worſt of all. The like is a barraine ſande, and hungrie ſande: but you may ſet it well in corne grounde, where either the Wilding or the Walthelme hath growen: but betwixt the Oke and it, there is great hatred, for if the Oke groweth nére, it flieth away, and ſhrinketh towardes the earth: and though you cut downe the Oke, yet the very Rootes poyſoneth and killeth the poore Oliue. The like ſome affirme of the Trées called *Cerrus*, and *Eſculus*: for where they be pulled vp, if you ſet the Oliue, he dieth: ſo doth it (as *Plinie* ſaith) if it chaunce to be bruſed of the Goate. On the other ſide, betwixte the Oliue and the Vine there is great friendſhip and loue: and it is ſaide, that if you Graffe the Oliue vppon the Vine, it will beare a fruite that ſhal be halfe Grape, and halfe Oliue, called *Vuolea*, in Græke Ἐλαιοσταφυλὰς, and Oliue Grape. There are ſundry wayes of planting of Olyues: ſome take the biggeſt branches from the Trées, and ſawing of the youngeſt plantes of two cubites in length, they ſet them orderly in the ground: ſome ſet the whole Tréetogether. Some againe cutting off the toppes, and all the branches, ſet the ſtocke, about the riſing of the ſtarre *Arcturus*.

rienal. Many make them grafte Warrens in good ground and mellow the, such as is rehearsed of the stocke before: for ther they set the young branches, the bignesse of the fayrest, thirtie inches in thickenesse, and very fertill, which they gather not from the body of the tree, but from the next and lustiest bowes. These they cut into pretty lettes of a foote and a halfe in length, taking good heede that they hurt not the pithe: and paring the endes very finely with a sharpe knife, and marking them with a redde Oker, that they may know which is the vpper ende, and so setting the lowest parte into the ground, and the highest reasonable aboue the water, they put them in the ground, and so they grow the faster, and beare the better: but if you should set them with the vnder end vpward, they would either hardly grow, and prooue barrayne: and therefore let them haue a regard of the setting of them. You must before you set them, rubbe ouer both the top and the foote, with drie ashes, and so set them deepe in the ground, couering them fower fingers thicke with rotten mould. You may trie whether you will set the wall aboue the ground, or a little vnder part within the ground, and suffer the rest to appeare aboue the ground: those that be set all vnder the ground, neede not to be marked, but such as shall stande with one ioynte aboue the ground. *Didymus* would haue them set as they may appeare fower fingers aboue the ground, and dig a trench to make a little trench for the receauing of the water and therewith not plashing with the bowes, is of *Didymus* best liked. Where you intende to plant, you must purge the ground of all other plantes, herbes, and weedes: and the Trenches must so be made, as with the wind, the sunne and raine, it may be neither ouerand made crombling, that the plantes may the sooner take roote. If your buildings require haste, you must a moneth or two before, burne in the trenches either sticks, or reede, or such thinges as will easily take fyre: and this you must doe diuers times together. Your trenches must be three cubites, or three quarters in depth, & forty cubites a sunder, whereby the trees may haue ayre enough: the first yere, second, & the third, the earth must be trimmed with often raking: the first two yeres you must not suffer any prooping:

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the third yeere, you must leaue vpon euery one a couple of branches, and often raise your Impe Garden: the fourth yeere, you shall of the two branches, cut away the weaker: being thus ordered, in the fift yeere they will be meete to be remoued: the stocke that is as bigge as a mans Arme, is best to be remoued: let it stand but a little aboue the ground, so shall it prosper the better. Before you remoue it, marke the part that stood South with a peece of Diuer, that you may set it in like maner againe. You must first digge the trenched ground with Mattockes, and after turne in stone plowed earth, and sowe it with Barley: if there be any water standing in them, you must let it out, and cast in a fewe small stones, and so setting your Settes, cast in a little dounge. After the tenth of June, when the ground gapes with the heate of the Sunne, you must take heede that the sunne pearce not through the clefts to the Roote. From the entring of the Sunne into *Libra*, you must ridde the Rootes of all superfluous springes: and if the Tree growe vpon the edge of a Hill, you must with little gutters draw away the muddy water. The dounge must be cast on at the fall of the leafe, that being mingled in Winter with the mould, it may keepe the Rootes of the trees warme. The Mother of ayle must be powred vpō the great ones, & the mosse must be cut of with an iron instrument, or els it will yeeld you no fruite. Also after certaine yeeres, you must cut and loppe your Oliue Trees, for it is an old prouerbe: that who so plowoeth his Oliue Garden, crauth fruite; who dungeth it, mooueth fruit: who cutteth the Trees, forceth fruite. In the Oliue Tree, you shall sometime haue one branch more gallant then his fellowes, which if you cutte not away, you discourage all the rest. The Oliue is also grafted in the wilde Oliue, specially betwirt the rinde and the woode, and by emplastring: others graffe it in the Roote, and when it hath taken, they pull vp a parcell of the Roote withall, and remoue it as they doe other plantes. Those Olines that haue the thickest barkes, are grafted in the barke. The time of Grafting them, is from the entring of the Sunne into *Aries*, and with some from the first of May, till the first of June. The time of geathering of Olines, is when the greater part of the fruite weyeth blacke,

and

and in faire weather: the riper the Olives, the fatter will be the Oyle. In gathering of Olives, there is more cunning in making Oyle, then in making wine: the lesser Olives serue for Oyle, the greater for meat. There is sundry sorts of Oile made of an Olive, the first of all is raw, and pleasanter in taste: the first streame that comes from the Presse is best, and so in order. The best Oyle is about *Venafri* in *Italy*, and *Licinia* in *Spaine*: The next in goodnesse in *Provence*, except in the fruitefull partes of *Barbary*. The Olives that you may come by with your handes, you must either vpon the ground, or with Ladders gather, and not beate them downe: for those that are beaten downe wither, and yelde not so much Oyle as the other: and better is the Olive that is gathered with the bare handes, then with gloues: there is an olde lawe for Olives, bruise not the Olive, nor beat him. Those that passe the reach of the hand, must bee rather beaten downe with Reedes then Poules: the Oyle is encreased from the rysing of the Bear ward, to the fiftenth of the kalendes of October: after, the stone and the meate doe growe. Of Oyle, some part serueth for meate, and other for the supplying of the bodie: and therefore as *Varro* saith, it accompanieth his maister, not only to the Bathe, but also to the fielde: or where so euer he goeth. The Olive whereof you make your Oyle, must be taken from the ground: and if it bee foule, must be washed: for the drying, three daies is sufficient: if it be frostie weather, they must be pressed the fourth daie: euery first heape must be put in earthen pottes, and Oyle vessels, where with hard and rough stones they are grinded. The gathered Olive, if it lie to long in heapes, putrifieth by reason of heat, and makes vnsauerie Oyle. Milles are more handsome for the making of Oyle, then the trough and the foote: for the Oylles may be handled with great discretion: the whole stone may be rayled by let downe, according to the quantitie of the Berrie, least the stone which should marre the taste of the oile should be broken. The presses chiefely, and the oile houses ought to be warme, for the speedier running of the Oyle: which with colde would make the longer stay. And fith heate and warmth is so needefull, you must prouide that your house lie towarde the

Sunne,

Sunne: so shall you nede neither flame nor fire, which with smoke or sote, may corrupt the taste of your Dyle. The lawes and order of gathering, and bestowing of Oliue, hath *Cato* described: the manner of preseruing them is declared by *Columella*, which were to much for me to speake at this time.

THRA. Goe on then, and let vs heare what you can say of Apple trees: whose vse is more commonly knowen vnto vs.

Apples.

MARIVS. The Apple, called in Latine *Pomum*, in Greeke μῆλον. There are that put this difference betwixt the Apple and the Nut, that what so euer fruit is to be eaten soft without, and hard within is an Apple, and the contrary a Nut. *Pomum* generally spoken, is to be vnderstode of all that the Greekes comprehended in the word ὀπωρινὰ, as Peaches, Quinces, and Peares, whereunto the Lawyer agreeth: but in this place I speake of Apples, according to the common phrase: as for Quinces, Pomegranates, & Turkie Plomes, I will speake of in their due places. There are such sundry sortes of Apples, differing both in shape and sauour, as are scarcely to be numbred. In the olde time the chiefest Apples were *Septiani*, very great and rounde, *Martians*, *Claudians*, *Matians*, and *Appians*, so called of their first founders: some againe take their names of their Countries, as *Camerians*, and *Grecians*: so others of their colours, as rebbe, sanguine, silken, and golden. We haue at this day that are cheefe in price the Pippen, the Romet, the Pomeroyal, the Marigold, with a great number of others, that were to long to speake of. There is but one maner of planting and grafting of them all, sauing that the Peach, the Lemon, the Abricot, the Quince, and the Cytron, which are all of *Dioscorides* accounted in the number of Apples, require a little more diligent care, as shall be made hereafter, then the others, for they are all both planted and grafted: the maner of an Impe Garden *Cato* setteth. Apple trees are set either in February, or in March: but the Countrey be hotte and drie, in October and Nouember. But all kindes of Apples doe better prosper by grafting, and inoculation, or inbudding, as I said before, about March or Aprill, or what time so euer the Impe be in the rinde. They are also grafted by emplastring, about the tenth of June; though

though some (as they say) haue had good successe in doing it, after the entrance of the Sunne into *Aries*, as I haue said before, where I spake of implastring and Grafting. The Apple is commonly Grafted vpon the Crab stocke, or vppon the Bramble, being first planted, and the yeere after cutte off within a foote of the earth: vpon this stocke you may Graffe (as I saide) the tender yong Graffes of any Apples. *Palladius* saith, you may graffe the Apple vpon the Perrey, the Hawthorne, Plome tree, Seruille tree, Peach, Plane tree, Poplar, Willowe, and Peare: but in such difference of Countreyes, we can set downe no certaine order for them all: and therefore as farre as mine owne experience, and the knowledge that I haue learned of others will streteh, I will gladly shewe you. There are that according to the olde order, doe Graffe the Apple either vpon a wilde Perry, or vpon a Quince, whereof they haue a most excellent fruite, called of the olde writers *Melimela*. If you Graffe vpon the Plane tree, you shall haue a redde fruite: you may also well Graffe your Apple vpon the Damson tree, and if you Graffe vpon the Cytron, you shal haue them beare, as *Diophanes* saith, fruite almost all the yeere long. The Apple loueth a fatte, and a good ground, well watred rather by nature, then by industrie. In mountaine countries, they must alwaies be set toward the South: it prospereth well enough, so it be something holpen with the Sunne, neither do they refuse either rough, or marish grounds. A leane and a barraine soyle bringeth out Wormeeates, and falling fruite, the noysome Wormes are destroyed with Vrine of yong, mingled with warm Wine, and powred vpon the rootes. And if the tree be very full of Wormes, being scraped downe with a brasen scraper they neuer come againe, if the place where you scrapped them, be rubbed ouer with Bullockes dounge: some adde vnto Vrine Goates dounge, and powre vpon the rootes the lees of olde wine. The tree that is sicke, or pas sprouteth not, is holpen being watred with Asse dounge, and water fiue dayes: they must be often watered at the setting of the Sunne, till the spring be come out. *Plinie* writeth, that the water wherein Lupines hath beene sod powred vpon the roote, doth the fruite good. The sap of the

Against hurtfull woormes.

tree

Trée, be much watred with raine, the fruite willbe redde. Others againe set vnder their Trées Roses, thinking thereby to haue their Apples redde. Apple Trées (as I layed before) muſt be ſette euery ſorte by themſelues, as *Columella* biddeth, leaſt the ſmall trées be hurt of the greate, becauſe they be not al of one growth, nor ſtrength. Beſide, you muſt ſet them verie thin, that they may haue roome to ſhoote out their branches: For if you ſette them thicke, they will neuer beare well, and therefore you muſt ſette them fortie, or at the leaſt thirtie foote a ſunder: the Apple declareth his ripenelle, by the blacknelle of his kernels. They are gathered after the fourteenth of September, or there about, according to their kinde, and not before the Moone be ſeuentéene daies old, in faire weather, and in the after noone: Thoſe that fall from the Trée, muſt be laied by themſelues: it is better to pull them, then to ſhake them, leaſt they be bruiſed in their falling. They are kept in faire loftes, vaultes, or colde places, with windowes opening toward the North, which in faire weather muſt be ſette wide open: and therefore *Varro* would haue all Apple loftes haue their windowes North, that they may receiue the North aire: The South windes muſt bee ſhutte out: The blaſtes of the North winde, doth make them wrinkled and rugged: they muſt be laied thinne vpon Strawe, Chaffe, or Mattes. I had an Apple brought me out of Holland, that endured three yeres: I haue a Trée of them here in this Orchard of his colour, called a Greening. You muſt laye euerie ſort by themſelues, leſt ſonderie ſortes lying together, they ſoner rotte. Some vſe to laie them in Nutte leaues, whiche both giueth them good colour, and good ſmell. They are alſo kept from rotting, if they be laied in Barlie, or Wheate. *Palladius* would haue them kept in earthen veſſels cloſe ſtopped, in Seſternes, or in Caues. *Apuleius* in *Conſtantine*, would haue euery Apple wrapped in Nutte leaues, and ſo laied vp: a great ſort of waies beſide of keeping them, you ſhall reade in diuers authours. Some to auoide the hurt of the Froſte, vſe to couer them with wette Linnen clothe, which being frozen, the fruite that lieth vnder it, is preſerued. Your Apples muſt be ſo laied vp as the ſtalkes ſtand downeward: neither muſt you touche any,

To keepe Apples.

but ſuche as you neede. Apples are hurtfull to bearing tattell, ſo as the ſauour cauſeth them to tyze, as *Lucian* in his Aſſe witneſſeth: the like is wzitten of Peares, the remedy they ſay, is to let them eate ſome of the fruite afoze. Of Apples, with certaine Milles foz the purpoſe, they make a dzinke called Cider, and a ſmallie dzinke beſide with water, and the refuſe of the Apples ſtrained: a good dzinke to coſe the thirſt of the poze labourer. A kinde of Vineger alſo they make of Crabbes, and ſoure Apples, which lying in heape together three oz foure daies, they afterwards putte into a Pipe, oz Tunne, wherewith they mingle Spzing water, oz Raine water, and ſo is it ſuffered to ſtand cloſe couered thirtie daies, and after taking out what Vineger they need, they put in againe as much water. The Peare, in Latine *Pirus*, in Greeke ἀπιος and ὄχνη, chalengeth the nexte place, and is one of the cheefeſt beauties of the Orchard. The Apple Tree ſpzeadeth in bzoade bzaunches, the Peare Tree riſeth in heighth, and delighteth in a riche and a moiſt ground: it doth growe of the Kernell, and of the Pippin, but is a greate while befoze it come to good: and when it is growen, it degenurateth from them his olde good Nature, and therefoze it is better to take the wilde plantes, and to ſet them in their ground in Nouember, and when they be well rooted, you may graffe vppon them. It is ſaied, that it ſo pzoſpereth with often digging, and muche moiſture, as it neuer loſeth his flowze. You ſhall do greate good vnto it, if euery other yeer you beſtow ſome doung vppon it. Dze doung is thought to make greate and mallie Peares: ſome put to a little Aſhes to make their taſte the pleaſanter. They are not alonely planted of the rootes, but alſo the verie little twigges, being plucked from the roote, will growe. If you will ſette yong plants, let them be three yere olde, or at the leaſt two yere olde befoze you ſette them. Some againe take the faireſt bzaunches they finde vppon the Tree, and ſette them as they do the Oliue: the time of grafting the Peare, is March and Apzill. *Plinie* ſaieth, you may well graffe it, when the bloſſome is on it, whiche I my ſelfe haue tried to be true. It is Grafted vppon the Quince, the Almonde Tree, the Pomegranate, the Apple, and the Mulberie Tree: if you graffe vppon

The Peare.

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the Mulberie, your Peare shalbe red. *Virgill* teacheth to graffe it vpon an Ashe, whereas in deede it will agree with any stocke: the graffe must be the growth of a yere, and afore it be grafted, cleared of all the leaues & tender parts. And if you would haue the fruite pleasaunt, and the Tree fruitefull, you shall boare a hole through the stocke close by the grounde, and driuing in an Oken, or a Beechen pinne, couer it vp with earth: If the Tree prosper not, wash the rootes, and water them with lees of olde wine fiftéene daies, so shall it beare the better and pleasaunter fruite. It shall neuer be hurt with woormes, if whē ye plant it, you do annoint it with the Gaule of an Oxe: if the Tree (whose rootes haue béen cutte) séeme not to prosper, *Palladius* his remedie, is to pearce the roote through, and to driue in a pinne made either of Oke, or Plometrée. If your Peares be stonie, & choke Peares, digge vp the earth from the rootes, clense them of stones, and sift in good new mould againe in the place: let your Peare Trées stand thirtie foote a sunder, or little lesse: your Apple Tree farther, as I haue saied. They are kept preserued sundrie waies, some dipping the stalkes in boilyng Pitche, doe afterwards hang them vp, and so kéepe them: others kéepe them in neine boiled wine, or els in a close vessell: others in sand, some in flockes, and some againe couered with Wheate, or Chaffe: some are of opinion, there is no kinde of fruite, but may be preserued in Honie. Of Peares *Palladius* teacheth, as of Apples, to make both drinke and sause, the iuice being prest out with the presse. Women haue a prettie dish made of Peares for their religious fastes, called *Castimoniale*. Next in order after Apples and Peares, commeth the Quince, which was first by *Cato* called *Cotoneum*, the Grékes call it Μηλωνιον, of the Citie *Cydon*, from whence it was first brought, the Italians *Meie cotogne*, the Spaniardes *Membrillo*, the Frenchmen *Vn coignier*: both the Grékes and *Virgill*, call them of the colour χρυσομηλα, golden Apples, and *Struthia*, which kind (though they differ a little) are of this sorte: for *Columella* speaketh of three sortes of Quinces, *Struthia*, *Chrysomela*, and *Mustea*, which all serue both for health and pleasure. They are planted after the same maner that Peares & Cheries are: some affirme, that the set that haue

To keepe Peares.

The Quince.

bene ſette in March, or in Februarie, haue taken ſuch Roote, as they haue borne fruite the yeere after. They grow wel in cold and moiſte Countries, in plaine and Hillie groundes: In hotte drie Countries, you muſt ſette them in October. Many ſette them with the toppes and the ſette, but neither of them both is verie good: and being ſet of ſcience, they ſome degenerate. They are better Graffed in the ſtocke, then in the barke, and that in Februarie, or Marche: They receiue into their ſtockes, the Graffes (in a maner) of all maner of Trees, the Pomegranate, the Seruiſſe, al the ſortes of Apples, and make the fruite the better. The Quince Tree muſt be ſette in that order, that in the ſhaking of the Winde, they droppe not one vppon the other. When it is young, or newlie planted, it is helped with doung, or better with Aſhes: they muſt be watered as often as the ſeaſon is very drie, and digged about continually: In hotte Countries in October, or November, in cold Countries in Februarie, or March: for if you doe not often digge about them, they will either be barraine, or beare naughtie fruite: they muſt be proined, cutte, and ridde of all encombraunces. If the Tree be ſicke, or proſper not well, the roote muſt be watred with the mother of oyle, mingled with the like quantitie of water, as *Diaſmus* in *Conſtantine* ſaith, or vnſlecht Lime medled with chalke, or Rozen and Tarre muſt be powred vpon the rootes: you ſhall gather them in a faire day, being ſound and vnſpotted, and verie ripe, and in the waine of the moone. They are beſt kept coſſened betwixt two hollowe Tiles, well cloſed on euery ſide with claie: ſome lay them onely in drie places, where no wind commeth: others keepe them in Chaffe and Wheat: many in hony, ſome in Wine, and maketh the Wine more pleaſaunte. *Democritus* biddeth you beware, that you lay them not neare other fruite, becauſe with the aire they wil corrupt them. There is alſo made a kind of Wine of Quinces (being beaten and preſſed) and a little Honie and Myrre put vnto it: our countrie men make of them a precious Conſerue, and Marmelade, being congealed with long ſeething, and boiled with Sugar, Wine, and ſpices. I will nowe ſhew you of the Medlar, which the Greekes call Μέσπιλον, the Latines *Meſpilus*, the Italians *Meſpilo*, the Spaniard

To keepe Quinces.

The Medlar.

Spaniard the *Meſpero*, the Frenchemen *Meſplier*, or *Neſſier*, the Dutchemen *Meſpelen*: this Tree is alſo of the number of Apple Trees, and Peare Trees: it is planted in like maner as the Quince is: it delighteth in hote places, but well watred, though it doe well enough in colde. We haue ſeene it proſper very well among Okes and Woodes: for we haue ſeen great Woodes of them growing among Okes, that haue yerely yelded a great deale of money. Some ſaie it is planted of the ſcience, in March or Nouember, in a well dounged ground and mellowe, ſo that both the endes be rubbed ouer with doung. It is alſo ſet of the ſtone, but then it is very long before it come to any thing: It is excellently well graffed in the Bramble, the Pirrie, or the Apple. The Medlar that you meane to keepe, muſt be gathered before they be ripe: and being ſuffered to growe vpon the Tree, they laſt a great parte of the Winter: they are alſo preſerued in ſodden Wine, and Vinegar and Water: In *Catos* time they were not knowne in Italie. *Plinie* and others haue ſpoken of them: neither is it certaine, whether the old writers take them for Seruilles. *Plinie* ſpeaketh of three kindes of them: The firſt kind hauing but three ſtones in them, called therefore *Tricoccum*. We haue at this daie two kindes, the one hauing here and there prickles, growing in euery Wood and Thickette, very ſowre afore it be mellowed, and made ſoft with Froſte, and cold of Winter: the other hauing no prickles at all with a great fruite, which ſeemeth to be brought hereunto by diligent Planting and Graffing. The wood of the wilde Medlar we vſe to make Spoakes for Wheeles of, and the twigges of them ſerue for Carters whippes. Nert vnto the Medlar for neighbourhode ſake, we muſt ſpeake of the Seruille, a high tree with a round berrie, or faſhioned like an Egge: wherefore it is called Ova as *Theophraſtus* witneſſeth, and the fruite the Latines call it *Sorbus*, the Italians as the Latines, the Spaniardes *Seruall*, the Frenchemen *Cormie* or *Cormier*, the Dutchemen *Sporreffelbaum*: The fruite growes in cluſters as the Grape doeth: the wilde is better then the Garden fruite. It delighteth in colde places, and if you plante it in hotte Countries, it will beare barraine. It hath no prickles as

the Medlar hath, it groweth of the stone, the sette, the rote, or the science, and prospereth in a cold and wette soile vpon hilles: it is planted in Februarie and March in cold Countries, and in hotte, in October and Nouember: It is Grafted either vpon his owne stocke, or on the Quince, or Hawthorne, either in the stocke, or the barke.

THRA. I marueil how can you haue Pomegranates here, I pray you shew what order you vse.

Pomegranates.

MARIVS. Among the strange fruites, there is none comparable to the Pomegranate (so called I thinke) because of his Countrey *Carthage* and *Africa*, where the best doe growe: the tree (as yee see) is not hie, the leafe narrowe, and of a verie faire Greene, the flowre Purple, and long like a coffine, the Apple that is compassed with a thicke rinde, is al full of graines within: it is called of the Greekes ῥοὰ or ῥοιά, as well the tree as the fruite ῥοὰ γλυκεῖα ἢ ἁπλῆ, the Pomegranate sweete and sowre, it is called in Latine *Malum Punicum*, and *Malum Granatum*, in Italian *Mele grano*, in Spanishe *Granada*, in Frenche *Pomes de Granad*, in Dutche *Granatapffel*. This tree onely as the Figge and the Vine, the bodie being clouen, dieth not: the branches are full of prickles as the Goast is: it loueth both a hotte grounde, and a hotte Countrey, and liketh not watrie places. In some hotte Countries, it groweth wilde in the bushes: it is planted in the springtime, the rootes being watred with Hogges doung and stale. It is grafted vpon his owne stocke, and also vpon other Trees, and likewise of the sciences that growe from the rootes of the old tree. And though it may be planted sondrie waies, yet the best way is the branch of a cubite in length, smothed with your knife at both the endes, and sette slopewise in the grounde, with both his endes well smeared with Hogges doung and stale. There is also an other waie of planting it, which is, to take a verie fruiteful stocke, which may be brought to the earth, and him after the maner of other trees they Graffe by inolliation, betwixte the barke and the rinde, and well and closely bind it after they set it in the grounde, not touching the grafted parte, but the partes beneath, annointing it with the mother of oile, and make it fast with

with cordes, that it slippe not backe, till the branch bee growne. It much delighteth (as *Democritus* saith) in the Vertill, in so much as the Rootes will meete and tangle together with great ioie. The fruite will growe without kernels, if as in the Vine the pith being taken out, the set be couered with earth, & (when it hath taken) the spring be proined. There is as *African* reporteth, in euery Pomegranate a like number of graines, though they differ in bignes. *Basil* writeth in his *Hexam.* that the sowre Pomegranate will growe to be sweete, if the bodie of the tree neere to the Roote be pearced through, and filled vp with a fat Pitchtree pin. You shall haue them endure a very great while, if they be first dipped in scalding water, and taken out quickly be laied in dry sand, or else in some heape of Wheat in the shadowe till they be wrinckled, or else so couered with chaffe, as they touch not one the other. Other say, it is best to keepe them like Quinces, couered with plaster, or chalke: for in cold places they are kept without corrupting. The rinde of the Pomegranate is called in Latine *Malicorium*, the flowre of the Garden pomegranate *Dioscorides* calleth κύτινον, and of the wilde βάλαυστον.

THRA. I heare also, the outlandishe Citron is here very carefully planted.

MARIVS. The Citron, called also the *Median*, the *Persian* and the *Assirian* Apple, because it was first brought out of *Persia*, and from the *Medes*: others saie, it was first brought out of *Africa* into *Greece* by *Hercules*, and therefore *Varro* calleth it, the Apple of *Africa*: they are called in Greeke μηδικὰ, and in Italian *Citroni*, in Spanish *Zidras*, in Dutch *Getermaffel Pomerancen*, in French *Citron*: the fruite is called in Latine *Hipericum*, and *Aureum malum*, the golden Apple, also the mariage Apple of *Iupiter* and *Iuno*: such of them as are yellowe, and of a golden colour, they commonly call Orenges: such as are of a greenish pale yellowe, they call Cotrolles, or Citruls: those that are long fashioned like an Egge, if they bee yellowe, are called Citrons, if they bee greene, Limons: if they be very great and rounde like Pompeons, they call them Pomcitrons: the tree doth alwaies beare fruite, some falling, some ripe, and some springing, nature shewing in them a wonderfull Cytrons.

fertilitie, as in the Trees that *Homer* deſcribeth in the Orchardes of *Alcinous*. The leafe is like the Baie leafe, ſauing that there growe prickles amongſt them: the fruite is yellow, bowinckled without, ſweete in ſauour, and ſowre in taſte: The kernelles like the kernelles of a Peare, a great reliefe of poyſons. The Tree is planted (as *Palladius* ſaith) ſeuen manner of waies, of the kernell, the ſcience, the braunch, and the ſtocke. If you will ſet the kernell, you muſt digge the earth two foote euerie waie, and mingle it with aſhes: you muſt make theyr beddes, that they may be watred with gutters on euery ſide. In theſe beddes you muſt open the earth with your handes a handbreadth, and ſet thy kernelles together with the tops bowing toward, and being couered, water them euery day, and when they ſpring, leaue no weedes nere them: they will ſpring the ſooner, if you water them with warme water. Others ſay it is beſt the graines being taken out in the ſpring, to ſet them diligently in good mellowed furrowes, and to water them euery fourth or fifth day: and when they begin to growe, to remoue them againe in the ſpring, to a gentle and a moiſte ground, for it delighteth in much moiſte: if you ſette the braunche, you muſt not ſet it aboue a foote and a halfe in the grounde, leaſt it rotte. The ſcience and the ſtocke, *Palladius* thinketh it better to be planted, and ſtyckt which way. If any man meane to ſet the ſtocke, let him beginne it well from the South, and ſet it towarde the South, and the Sunne in the Winter, in trailes and billettes: wherefore, ſome that are carefull and diligent in the tendering of the tree, do make little vaults toward the South cloſe couered, and within them nere the wall, they plant the Orenge, ſuffring the vaultes all Sommer to lie open to the Sunne, and to take the heat therof: and aſſone as Winter comes, they ſtoppe them ſtraight with ſtraw, or mattes, ſpecially with the huſkes of gourdes. This tree delighteth to be continually digged about, they are grafted in hotte places in April, in colde Countreies in Maie, not lower the barke, but cleauing to the ſtocke hard by the roote: they may be grafted both on the Peare tree, and the Apple tree: but when they are grafted, muſt be fenced either with a wicker backet, or ſome earthen beſſel. The fruit will be ſweet, if

the

the kernelles be ſteped in Water ſodde with Honie, or which is better in Sheepes milke. Such as you meane to kepe, muſt be gathered in the night, the Moone being olde, and gathered with braunches and all, as they hang. Where the fruite burdeneth the tree, you muſt pull them off, and leaue but fewe on it, which will be the pleſanter, and the kindlier fruite. It is at this day nouriſhed both in Germanie and Fraunce, and implanted in beſſelles full of earth, and in hotte weather is ſette abroade in the Sunne: in colde weather ſette in Sellers, or in hotte houſes. I haue ſeene in Germanie, certaine hot houſes of purpoſe made of Firre bordes, that in Winter haue warmed all the Garden, and in Sommer the frames taken away, haue giuen place to the Sunne. If while they be yong and little they be put into earthen beſſelles, or glaſſe, they growe according to the proportion therof: ſo that you may haue them faſhioned either like a man or like a beaſt, according to your fancie: But you muſt ſo order your mouldes, as the aire may come to them. But leaſt I kepe you too long with theſe outlandiſh trées, I will ſpeake ſomething of our owne trées, wherewith we are better acquainted: Among which we haue the Mulberie, in Latine *Morus*, in Greeke μόρον the fruite μόρα, in Italian *Moro*, in Spaniſhe *Mora*, in Frenche *Meure*, in Dutche *Malbeyn*: this is accounted of all other trées the laſteſt, becauſe he neuer ſhoteth, till all colde weather be quite paſt: ſo that whenſoeuer you ſée the Mulberie begin to ſpring, you may be ſure that winter is at an ende: he is ripe with the firſt, and budeth out ſo haſtily, as in one night with a noiſe he thruſteth out his leaues: they die the hands (as *Plinie* ſaith) with the iuice of the ripe berrie, and waſh it not with the greene berry: he changeth his colour thriſe, firſt white, then redde, and laſtly blacke: he loueth hotte places, and gramellie, and delighteth in digging and dounging, but not in watering: his ſtockes muſt be opened about October, and the Lees of Wine powred vpon them: it is ſette of the ſtones, but thinne: it often groweth to be ſhrubbe: the beſt planting is the ſcience, and the toppes, a foote and a halfe long, ſmoothed at both endes, and rubbed ouer with dounge. The place wherein you ſet your ſettes, they loue with Aſhes mingled

The Mulberie Tree.

led with earth, but couer it not aboue foure fingers thicke. *Palladius* biddes you to ſet it in March, and to remoue it in October, or Nouember. *Democrit* telleth, that the Mulberie may be planted in the fall of the leafe, by thrulting into the grounde the braunches, after the order of the Figge tree, which I my ſelfe haue proued, ſpecially, if the end that is cut to be ſet be bruſed that it may the quicklier take rote: and ſo when you haue made your hole with a ſtake, thruſt it in: it is alſo graffed on the Beech, and the white Poplar, either by grafting in the ſtock, or by inoculation: and ſo that the berries be white. It is graffed alſo in the figge, and the elme, which in olde time they woulde not ſuffer, for feare of corrupting. Of the Mulberie is made a verie noble medicine for the ſtomacke, and for the gout: they will longeſt endure (as it is ſaide) kept in glaſſes. The leaues doe ſerue to feede ſilke wormes withall, whereof ſome make a very great gaine, and ſet them rather for that purpoſe, then for the fruite.

THRA. What tree is that with the ruddie coloured fruit is like a Cherie?

The Cornel. *MARVS.* It is a Cornell Tree, called in Greeke κρανεια, in Latine *Cornus*, in Italian *Cornola*, in Spanith *Zumaquelueſtro*, in French *Cornier*, in Dutch *Cornelboom*, the tree is thought neuer to growne twelue cubites in height: the bodie is ſound and thicke like boxe, the leafe is like an Almonde leafe, but fatter, the flowre and the fruite, is like the Olive, with many berries hanging vpon one ſtalke, firſt white, and after redde: the iuice of the ripe berries, is of a bloodie colour: it loueth both Mountaines and valleies, and proſpereth both in moiſte grounde, and drie: it groweth both of the ſlippe, and of the ſeede. You muſt beware you plant it not neere to your Bees, for the flowre doth kil as many of them as taſteth it.

THRA. What tree is the ſame that groweth next vs?

Ziziphus. *MARVS.* That tree is called *Ziziphus*, in Greeke ζιζυφον in Italian *Giuggiole*, in Spaniſhe *Azofeifo*, in French *Iuiube*, in Dutch *Burſtboyrle*, the berries whereof, are like the Cornell berries, the flowre like the Olive flowre, but more ſweeter. *Columella* ſpeaketh of two kindes thereof, the one redde, the other white, they are ſet of the ſtones, in hotte Countries

tries in Aprill, and in cold places in Maie, or else in June: you may sette both the stone, and the branche, it is very slue in growing: if you set the plant, you must doe it in March in soft ground: but if you set the stone, you must set them in a little trench of a hand broad, three stones together, with their pointes downewarde: It loueth not to riche a grounde, but rather a light grounde, and a warme place: in Winter (as *Palladius* saith) it is good to lay stones about the boote of the Tree. The next are Italian Filbertes, in Latine *Pistacea*, in Greeke πιστάκια, in Italian *Pistinachi*, in Spanish *Alhozigo*, in French *Pistaches*, in Dutch *Welsce pimpernus*, the leafe is narrowe and browne, for vpon the branches hang the Nuttes, like the Nuttes of the Pine. Of this Tree it is thought ther is both male and female, and therefore they growe commonly together, the male hauing vnderneath his shell, as it were long stones: It is grafted about the first of Aprill, but vppon his owne stocke, and vppon the Terebinthe, and the Almonde Tree. They are also sette (as *Palladius* witnesseth) in the fall of the leafe in October, both of the slippes, and the Nuttes. It delighteth in a hotte and a moiste countrie, and loues to often watring. Italian Filberts.

THRA. Because I remember you tolde me before, that of Plantes and Trees some doe growe of the seede, or fruite, and some are Grafted: and because I haue heard the Grafting of most of them, I would nowe faine heare you speake of such Trees as growe onely of the stone, or berrie.

MARIVS. Your remembrance is good: for though they commonly grow better when they be grafted, yet some there be that prosper the better being sowen, and will scarce growe any other way. And though some of the aforesaid trees being sette, doe well prosper, as the Pedan, the Cornell, and diuers other, yet sometimes they were wilde, and long before they come to perfection, which I will also affirmatiue.

For that same Tree that of the seed, the stone, or berrie growes,
Doeth slowly spring, and long it is, ere any fruite he shewes:
And when it comes, it proueth wilde, and doth degenerate,
And vnlesse that some relishe sweete, that longeth to his state.

but

but by Grafting it is reſtored againe: Some of them againe, how ſo euer they be ſowen or ſette, doe not degenerate or growe out of kinde, as the Bay, the Date, the Cipreſſe, the Peach, the Abricocke, the Damſon, the Piſtace, the Firre Tree, and the Cherie: and becauſe they be not all of one order, I will tell you ſeuerally of the cheefeſt of them. To plant Trees of the ſeede, Nature (as I ſaied before) taught men at the firſt: the ſeede being deuoured of Birdes, and with the dounge let fall in the clefts of trees, where they after ſprong and greine.

The Baye. The Baie in Greeke *δαφνη*, in Latine *Laurus*, in all other tonges almoſt as in Latine. The berrie is called in Greeke *δαφνηδρον*, in Latine *Lauri Bacce*, in Italian *Bacche de lauro*, in Spaniſh *Vayas de laurel*, in Dutch *Lorbaren*, a moſt gratefull Tree to the houſe, a porter to Emperours and Biſhoppes, which cheefely garnitheth the houſe, and ſtandeth alwaies at the entrie. *Cato* maketh two kindes thereof, the *Delphick*, and *Cypreſſe*: the *Delphick* equally coloured and greener, with great berries, in colour betwirte greene and redde, wherewith the Conquerours at *Delphos* were wont to bee crowned. The Cypreſſe Baye hath a ſhorter leafe, and a darker greene, guttered (as it were) rounde about by the edges, which ſome (as *Plinie* ſaieth) ſuppoſe to be a wilde kinde: it groweth alwaies greene, and beareth berries: he ſhooteth out his branches from the ſides and therefore hurteth ſome old and rotten: it doth not very well alway with colde ground, being hotte of nature: it is planted diuers waies, the berries being dried with the Southy wind, are gathered and ſade abroade verie thinne, leaſt they cluſter together, afterward being wette with Urine, they are ſet in furrowes, a handful deepe, and very neere together: in March they be alſo planted of the ſlippe, and the ſcience. If you ſet them of the ſlippe, you muſt ſet them not paſſing iv. foote aſunder: but ſuche they growe out of kinde. Some thinke, that they may be graffed one in an other, as alſo upon the Pernille and the Aſhe: the berries are to be gathered about the beginning of December, and to be ſet in the beginning of March.

Nut trees. The Almond tree. Nut Trees are moſt commonly planted of the Nut, as all other ſhell fruites are. Of all Nutes the Almond is counted to be the worthieſt, called in

Greeke

Greeke Ἀμυγδαλέα, in Italian *Mandorle*, in Spanish *Almeidras*, in French *Amandes*, in Dutche *Mandelen*, they are set in Februarie, and prosper in a cleare and hotte grounde, in a fat and a moyste grounde they will growe barraine: They chiefly sette such as are crooked, and the yong plantes, they are sette both of the Slips, the Roote, and the Kernell. The Puttes that you intende to sette, must be laide a day before in softe doung: Others steepe them in Water sod with Honie, letting them lie therein but onely one night, least the sharpenesse of the Honie spoile the Plant: and being thus ordered *Columella* saith, they will be both the pleasanter, and growe the better. The toppes and the sharpe endes you must set downeward: for from thence commeth the roote, the edge must stande towarde the North: you must sett three of them in a Triangle, a handfull one from the other: they must be watered euery ten daies, till they growe to be greate: It is also planted with the braunches, taken from the middest of the Tree. The Almonde is graffed not neere the top of the stocke, but about the middest, vppon the bowes that growe out. This Tree doth some beare fruite, and flowreth before all others, in Januarie, or Februarie. *Virgill* accounteth it for a Prognosticatour of the plentifulnesse of Corne.

When thicke the Nutte Tree flowers amidde the wood,
That all the branches laden bende withall:
And that they prosper well and come to good,
That yeere be sure, of Corne shall plentie fall.

The bitter ones (which are the wholesomer) are made sweet, if rounde about the Tree, foure fingers from the Roote, you make a little trenche, by which he shall sweate out his bitternesse: or else if you open the Rootes, and powre thereon either Urine, or Hogges doung: or if at the Roote of the Tree, you thrust in a fat wedge of Pitch Tree. By this meanes (as *Basill* saith) they will lose their bitternesse: but no Tree groweth sooner out of kinde, and therefore you must often remoue it, or Graffe it when it is greate. Walnuttes, called in Greeke Βασιλικὰ κάρυα, in Latine *Iuglantes*, in Italian *Noce*, in Spanishe *Neuzes*, Wallnuts.

Nuces, in Frenche *Nois*, in Dutch *Groſſe nuſſe*: they are ſette in the grounde (as *Plinie* ſaieth) the ſeame downewarde, aboute the beginning of Marche: ſome thinke, that they will growe as the Filbert doth, either of the ſlippe, or the rote: it groweth ſpeedely, and liketh a drie and colde place, better then a hotte. The Nutte that you meane to ſet, will growe the better, if you ſuffer it to lie foure or fiue daies before in the water of a boyle, and will proſper the more, if it be often remoued: thoſe Nuttes (as it is thought) proſper beſt, that are let fall by Crowes, and other Birdes. If you pearce the Tree through with an Augur, and fill vp the place againe with a pinne of Elme, the Tree ſhall loſe his knottie hardneſſe, neither will he loſe his fruite, if you hang by either Wallet, or a peece of Skarlet from a dounghill.

THRA. What is the reaſon you plant your Walnutte Trees rounde about on the outſide of your Orchard, and not among your other Trees?

MARIVS. Becauſe his ſhadowe is greate, and vnholſome, beſide the hurt he doeth with his dropping. He ſucketh out a great deale of good iuice from the ground: for as you ſee, they are verie mightie and high Trees, ſo as ſome of them are two or three fadome about: they occupie a great deale of roome with their ſtandyng, and beguile the other Trees of their ſuſtenaunce: Beſides, there are certaine Trees they agree not well withall, and therefore haue I ſette them on the outſide of my Orchard, as ſtandards to defend their fellowes from tempeſt and weather. Among Nuttes, is alſo to be recounted the Haſell Nuttes, a kinde whereof is the Filberte called in Greeke νάρκιον in Latine *Auellana*, in Italian *Nociuole*, in Spaniſhe *Auellanas*, in Frenche *Noyſette*, in Dutche *Haſelnuſez*: they are planted after the maner of the Almonde: it delighteth in daie and watrilh grounds, and vppon hilles, being well able to abide the colde. They were firſt brought into *Aſia* and *Greece* from *Pontus*, and therefore called *Pontica*, and *Heraclotica*. &c.

Haſelnuttes.

Filbertes.

Among the Nuttes alſo chalengeth the Cheſtnutte his place, though he be rather to be reckoned among Maſte, whereby he is called the Nutte, or Maſte of *Iupiter*, in Greeke διὸς βάλανος, in Latine *Caſtanea*, in Italian *Caſtagne*, in Spaniſhe *Caſtana*, in Frenche

Cheſtnuttes.

Frenche *Castagnes*, in Dutche *Kastey*: it loueth well to growe on mountaines, and in colde countries: it hateth waters, and desireth a cleane and a good mould: it mysliketh not a moist gravell ground, and ioyeth in a shadowie and Northerly bancke: it hateth a stiffe and a redde claie grounde, it is planted both of the Nut, and the set: it is better planting wodes of them of the Nut, then of the set, otherwise the safer waie were the set, which in two yeres beareth fruite. It is planted whē the sunne is in the *Æquinoctial*, both of the science, the set, the branche, and the rote, as the Olive is. The Chestnuttes that you meane to sowe, must be verie faire and ripe, the newer they be, the better they growe: you must not set them after that sort that you sette Almondes, or Filberdes, but with the sharpe end vpwarde, and a foote a sonder the furrowe must be a shafman deepe. You were better (as I saied) to make your Greue of the Nuttes, then of the settes, whiche will be meete to be filled for stakes in seuen yere. *Columella* writeth, that the Chestnutte meete for the supporting of Vines, if he be sowen in well digged grounde, doeth quickly springe, and bring felled after fiue yeres, it prospereth like the Willow: and being cutte out in stakes, it lasteth till the next felling, as shall be shewed hereafter, when we speake of Woodes. They will also haue the Chestnut to be grafted on the Walnut, the Beech, and the Oke: it hath been seene, that where they growe two and two together, they prosper the better. The Pine, in Greeke πίτυς, in Latine *Pinus*, in Italian and Spanish *Pino*, in Frenche *Pin*, in Dutche *Hartzbaum*, is planted not muche vnlike to the Almond, the kernels of the keie clockes being set as the Almond is: they are gathered in Julie, before the *Caniculer* windes, and ere the Nuttes, the huske being broken, fall out. The best time of sowing them, *Palladius* reckoneth to be October, and Nouember: this tree is thought to be a nourisher of all that is sowen vnder it. The Pitch tree is called in Greeke πίτυς, in Latine *Picea*, in Italian *Pezzo*, in Spanish *Pino negro*, in Dutche *Rotdannenbaum*, but I come now to the Cherie. The Cheritree, in Greeke κερασία, the fruite κεράσια, in Italian the Tree *Ceraſa*, the fruite *Ceraſe*, and *Ciregie*, in Spanishe *Cerezo*, and *Cereza*, in French *Cerisier*, and *Cerise*, in Dutche

the Cherie Tree.

Wate the *Kirſbaum*, *Kerſen*: the tree is eaſie to be planted, if the ſtones be but caſt abroad, they will grow with greate encreaſe: ſuch is their forwardneſſe in growing, that the ſtayes, or ſupporters of Vines, being made of Cherie Tree, are commonlie ſeene to growe to be Trees. They are graffed vpon the Plome Tree, vppon his owne ſtocke, vpon the Plane Tree, and on the Bramble, but beſt vppon the wilde Cherie it loyeth in being graffed, and beareth better fruite: if you graffe them vppon the Vine, your Tree ſhall beare in the Spring: the time of graffing, is either when there is no Gumme vpon them, or when the Gumme hath left running. They remoue the wilde plants, either in October, or Nouember, that the firſt of Ianuarie or Februarie, when it hath taken roote, it may be graffed vppon. *Martiall* would haue you graffe it in the ſtocke: but in deede it proſpereth better, being graffed betwixt the barke and the wood. It delighteth to be ſette in deepe trenches to haue rome enough, and to be often digged about. It loueth to haue the withered bowe continuallie cutte awaie: it groweth beſt in colde places, and ſo hateth dounge, as if it be laid about them, they growe to be wilde: it is alſo planted of the ſuppes, and will beare his fruite without ſtone: if in the ſetting of the ſette, you turne the vpper end downeward. Others will, that the tree being yong and two foote high, be ſlit downe to the roote, and the pith taken out of both ſides, and ioyned together, the ſeames cloſe bounde about, and couered with dung: which within a yere after (when it is well growen) the young graffes (which hitherto haue borne no fruite) if you graffe them, will beare Cheries without ſtones, as *Martiall* ſaieth. There are ſundrie kindes of Cherries (as *Plinie* reporteth, or *Apronianus*) that are redder than the reſt, *Affricanus* as blacke as a cole: which kinde in Germanie yet at this day, they call *Ackliſche kirſen*, *Celticians*, that are round. *Plinie* in ſpeaking of the ſundrie ſorts, preferreth the *Duracins*, which in *Campania* they were wonted to call *Plinians*: and a little after he ſaieth, vpon the banks of the Rhine, there grow alſo *Kerſis*, of colour betwixt blacke, red, and greene, like the Juniper beries, when they be almoſt ripe: in which the common ſort of bookes haue *Tertius* for *Kerſis* amongſt the Germanes for *Plinie*.

whereas

whereas in many places he interpreth the Dutch woordes, as in the 9. 10. 17. and 18. booke, and in diuers other places, which being not vnderstanded of the Latine, came altogither corrupted to the posteritie. There are also Bay Cheryes, grafted at the first in the Baye, and haue a prætie pleasant bitternesse: at this day, the small Cheryes are best estæmed, growing vpon a lowe bushy with short stalkes, round fruite, and very red, much meate, soft, and full of licour. It is saide they will beare very timely, if you laye Lime about them: it is good to gather them often, that they which you leaue, may ware the greater: for setting and planting of Cheryes, you may read a great sorte of rules in the gatheringes of *Constantine*. There are also founde a kinde of Cheryes growing wilde in the Woodes, and Hedgerowes, with little berries, some redde, some altogither blacke, which the Farmers in the Countrey doe vse for to fatte their Hogges withall. The Plome Tree, in Greeke κοκκυμηλος, the fruite κοκκυμηλα: in Latine *Prunus* and *Pruna*, in Italian *Prune* and *Susine*, in Spanishe *Ciruelo* and *Ciruela*, in French *Prune*, in Dutch *Proumen*, it is planted from the middle of Winter, till the Ides of Februarie: but if you set the stones at the fall of the leafe, let it be done in Nouember, in a good and mellowe grounde two handfuls deepe: they may be likewise set in Februarie, but then they must be steeped in lie three daies, that they may sooner spring: they are also planted of the yong setts that growe from the bodie of the tree, either in Januarie, or in the beginning of Februarie, the rootes being well couered with dung: they prosper best in a rich and a moiste grounde, and in a colde Countrey: they are grafted towarde the ende of March, and better in the clouen stocke, then in the barke, or else in Januarie, before the Gummes beginne to droppe out: it is Grafted vpon his owne stocke, the Peach, and the Almond. There are sundry sortes of Plomes, whereof the Damson is the principall, laying in a drie grounde, and in a hotte countrey, and is grafted as the other Plomes are. There are diuers coloured Plomes, white, blacke, purple, and redde: Wheate Plomes, and Horse Plomes, wherewith they vse to fatte Hogges. The longer Plomes are most commended, being of length of a mans

Plome trees.

finger, which are brought vnto vs from *Bohemia*, and *Hungarie*, and *Iulians*, and *Noberdians*, being blewe in colour, but later. The Damsons are dried in the sunne vppon Lattises, Leades, or in an Ouen, some doe dippe them before, either in sea water, or in Brine, and after drie them. The Peache tree, called in Greeke περσικαμηλα, the tree περσικη in Latine *Persica*, in Italian *Perseo*, in Spanish *Duraſno*, they are also called *Rhodocina*, and *Dorocina*, or *Duracina*, whereof there are foure kindes: but the cheefest are the *Duracins*, and the Abricocts: in November in hotte countries, and in others in Ianuarie, the stones are to be set two foote a sunder in well dressed grounde, that when the yong trees are sprong vppe, they may be remoued: but in the setting you must set the sharpe ende downward, and let them stand two or three fingers in the ground: whersoeuer they grow, they reioice most in watry groundes, which ground if you want, loke that you water them abundantly, so shall you haue great store of fruite. Some would haue them set in hotte countries and sandy ground, wherby they say, their fruit will longer endure: the better will also the fruit be, if as soone as you haue eaten them, you set the stone, with some part of the fruite cleauing to it: it is Graffed either on himselfe, the Almond, or the Plome tree. The Apples of *Armenia*, or Abricot, doth farre excell the Peach, vsed as a great daintie among noble men, and much desired of the sicke: they are best graffed in the Plome, as the Peach in the Almonde tree: the faireſt graffes that growe nert the body of the tree are to be chosen and graffed in Ianuarie, or Februarie, in cold countries, and in November in hot: for if you take those that growe in the toppe they will either not grow, or if they grow, not long endure. You shall inoculate, or imbudde them in Maie, or Aprill, the stocke being cut aloft, and many yong buddes set in: neither must you suffer them to stande very far one from the other, that they may the better defend themselues from the heat of the Sunne. The Frenchmen, and our Gardners also, after the Italians order, doe Graffe the Abricot, taking a Graft (not full a finger long) or the bud that is well shote out, with a little of the rind cut off, and slitting the rinde of a yong Plome tree crosse-

The Peach tree.

The Abricottes.

wise

wil, they set them in, binding them well about with Hempe, or Lowe, and that in the end of June, or in July, and August. Some thinke they will be redie, if they be either grafted in the Plane tree, or haue Roses set vnderneath them: they will also be figured, or written in, if seauen daies after that you haue set the stone, when it beginneth to open, you take out the kernel and with Vermilion, or any other colour you may counterfaite what you will, after the stone closed vp about it, and couered with Clay, or Hogges doung, you set it in the ground. Again, you shall haue them without stones, if you pearce the tree thorowe, and fill it vp with a pinne of Mylloiue, or Cornel tree: the pith being had out, the Rutes of the tree must be cutte and dressed in the fal of the leafe, and dounged with his owne leaues: you shall also at this time prune them, and rid them of all rotten and dead bowes. If the tree prosper not, powre vpon the rootes the lees of olde Wine mingled with water. Against the heat of the sun, heap vp the earth about them, water it in the euening, & shadow them as wel as you may. Against the frostes, lay on doing enough, or the lees of Wine medled with water, or water wherein Beanes haue beene sodden: if it be hurt with wormes, or such baggage, powre on it the wine of Oren, medled with a thirde part of Vineger. The Date tree in Greeke The Date.
[illegible], in Italian, in Latine, and in Spanish *Palma*, in French *Arbre de Dattes*, in Dutch *Dactelenbaum*: the fruite in Greeke [illegible], in Latine *Palmulæ*, in Italian *Datoli* in Spanishe *Datales*, in French *Dattes*, in Dutch *Dactelen*, it groweth in a milde graunelly ground, and delighteth in a watrie soile: and though it desire to haue water all the yeere long, yet in a drie yeere it beares the better: and therefore some thinke, that doung is hurtfull vnto it. About the riuer *Nilus*, and in the East partes it groweth plentifully, where as they vse to make both wine and bread of it. This tree in *Europe* (for the most part) is barraine though it be planted of many for nouelties sake. The stones of Dates are planted in trenches of a cubite in depth and breath, the trenche filled vp againe with any maner of doung, except Goates doung: then in the middest of the herse set your stones so, as the sharpe part stand vpward: other wise it will not

M.ij. toward

towarde the East: and after, when first they haue sprinckled theron a little Salt, they couer them with earth, well medled with doung: and euery day while it springeth, they water it: some remoue it after a yeares growth, other let it growe till it be great. Moreouer, because it delighteth in salt ground, the rootes must be dressed euery yeere, and salt throwen vpon them: and so will it quickly growe to be a great Tree. The settes are not presently to be put in the ground, but first to be set in earthen pottes, and when they haue taken roote, to be remoued. Date Trees haue such a delight one in the other, that they bend themselues to touche together, and if they grow alone, they ware barraine. They are planted (as *Plinie* saith) of the branches, two cubites long, growing from the toppe of the Tree: also of the slippes and sliuers. The same *Plinie* affirmeth, that about *Babylon*, the very leafe (if it be set) doth growe.

THRA. I remember you tolde me once, the spring and science that groweth out of the rootes of some Trees, will very well be planted.

MARVS. I told you before, that diuers of the Trees whereof I spake, might be planted of the branches, and of the sciences, hauing some part of the Roote plucked vp with them: and so I said the Chery might be planted, as also the Hasell, the Laurell, the Myrtell, and the Medlar: likewise, the fairest branches slippes of, and the endes a little brused, and thrust into the ground, commonly doe growe to be Trees, as I my selfe haue tried both in the Mulberry, the Peare tree, and the Apple tree. One thing I will adde beside, that the Trees that beare fruite ouer hastely, doe either neuer come to their iust bignesse, or the fruite that they beare, doth neuer long endure: wherefore I thinke it wrang first that lawe of Moses, that fruite Trees should for three yeeres be counted vncircumcised, and their foreskinnes with their fruite, should be circumcised: that is, the burgens and blossomes should be plucked of, lest he should beare before his time, or when he hath borne, lose his fruite: but I keepe you too long in the describing of my Orchard.

THRA. And I rather (whilest I heare you) imagine my selfe to be amongst them, planting and setting of their fruites:

fruites: but now remaineth that in ſtead of a concluſion to your talke, you declare the order of preſeruing them, to that end ſpecially, that thoſe thinges that are appointed for remedie (being not duely, or in time adminiſtred) be not rather a hurt, then a helpe.

MARIVS. Your motion is good: firſt therefore, and generally, dounging and watring is needefull for fruite trees, a very feiwe excepted: and herein hed muſt be taken, that you doe it not in the heate of the Sunne, and that it be neither too melwe, nor too olde: neither muſt it be laide cloſe to the foote of the tree, but a little diſtaunce off, that the fatnelle of the doung may be drauncke in of the roote. Pigeons doung, and Hogges doung, doe alſo heale the hurtes or woundes of trees. The water wherewith we water them, muſt not be fountaine water, or well water, if other may be had, but drawn from ſome muddie Lake, or ſtanding Poole. Moreouer, you muſt take heede, (as I alſo tolde you before) when wee begin to talke of planting of an Orchard) that your trees ſtand a good diſtance aſunder, that when they are growen hyge, they may haue rome enough to ſpread, and that the ſmall and tender, be not hurt of the greater, neither by ſhadowe, nor drapping. Some would haue Pomegranate trees, and Myrtels, and Baies, ſet as thick together as may be, not paſſing nine foote aſunder: and likewiſe Cherry trees, Plome trees, Quinces, Apple trees, and Peare trees, thirtie foote and more aſunder: euery ſorte muſt ſtande by themſelues, that (as I ſaide) the weaker be not hurt of the greater. The nature of the Soyle, is herein moſt to be regarded: for the Hill requireth to haue them ſtande nearer together, in moiſty places you muſt ſet them the thicker. The Mine (as *Cato* ſaith) will haue fiue and twentie foote diſtaunce at the leaſt. You muſt ſet your plantes in ſuch ſort, as the toppes be not hurt, or bruſed, nor the barke, or rinde ſlained off: for the barke being taken away round about, killeth any kind of tree. You muſt alſo haue a regarde of the ſhadowe, what trees it helpeth, and what trees it hurteth. The Walnut tree, the Pine tree, the Pitch tree, and the Yuare tree, whatſoeuer they ſhadowe, they poiſon. The ſhadowe of the Walnutte tree and the

Sadow of trees.

Oke is hurtefull to Corne: the Walnut tree with his shadowe also, is hurtfull to mens heads, and to all thinges that is planted neare it. The Pine tree with his shadowe like wise, destroieth young Plantes, but they both resist the winde, and therefore good to enclose Vineardes. The Cypresse, his shadowe is very small and spreadeth not farre. The shadowe of the Figge tree is gentle, though it spread farre, and therefore it may safely enough grow amongest Vines. The Elme tree, his shadowe is also mild, nourishing, whatsoever it covereth. The Plane tree though it be thicke and grosse is pleasant. The Poplar hath none, by the reason of the waivering of his leaues. The Alder tree hath a thicke shadowe, but nourishing to his neighbours. The Vines is sufficient for him selfe, and the moving of his leafe and often shaking, temperethe the heat of the Sunne, and in great raine well coveretha it selfe. The shadowe of all those, is commonly milde and gentle that haue long stalkes: the dropping of all trees is nought, but worst of all those, whose branches grow so as the water can not redily passe through: for the dropes of the Pine, the Oke, and the Waltholme, are most hurtfull, in whose company you may also take the Walnute: the Cypresse (as *Plinie* saith) hurteth not. Moreover, proyning and cutting, is very good and necessarie for trees, whereby the dead and withered bowes are cut away, and the unprofitable branches taken of: but to proyne them euery yere is naught, though the Vine requireth cutting euery yere: and euerie other yere, the Myrtill, the Pomegranate, and the Olive, whereby they will the sooner beare fruite: the others must be the seldomer proyned. Olive trees must be proyned in the fall of the leafe, after the setting of the seuen Starres: and well, they must be well dounged, as a help against their hurtes. You must cut away all the olde rotten branches that growe in the middest, and such as growe thicke, and are tangled together, and all the waterbowes, and unprofitable branches about them: the olde ones are to bee cutte close to the stocke, from whence the newe springes will arise. Scarifying also, or launcing, is verie profitable for the trees, when they are troubled with their leaues, and diseases of their barkes: but wherefore was ole to launce the barke

Dropping of trees.

Proyning

Scarifying

backe with a sharpe knife, cutting it straight downe in many places: which, what good it doeth, appeareth by the opening and gaping of the rinde, which is straightwaies filled vp with the body vnderneath. You must also trime and dresse the rootes of your Trees after this sorte. You must open the ground round about them, that they may be comforted with the warmth of the Sunne, and the Raine, cutting away all the rootes that run vpward. The trees that you remoue, must be marked which way they stood at the first: for so teacheth *Virgil*. Ablaqueation. Remooving.

And in the barke they set a signe,
To know which way the tree did growe:
Which part did to the South encline,
And where the Northren blasts did blowe.

Also, you must consider well the nature of the Soile, that you remoue out of a dry ground, into a moist, and from a barraine hill, to a moyste plaine, and rather fatte, then otherwise. The young plants being thus removed, must in the second or thirde yeare be proyned, leaning still about three or foure Braunches vntouched, so that they the better growe: thus must you vsually doe euery other yeare. The olde tree we remoue with the tops cut off, and the rootes impoverished, which must be helped with often hanging and watering. Apple trees that blossome and beare no fruite, or if it beare, they sodenly fall away, you shall remedie by slitting of the rote, and thrusting in of a stone, or a sharpen wedge. Also if you water your trees with vrine that is old, it greatly auaileth (as they say) both for the fruitfulnes, and pleasantnesse of the fruite. If the tree weare by reason of the great heate of the Sunne, you must raise the earth about it and water the Rootes euery night, setting vp some defence against the Sunne. To ripen their fruit to be quickely ripe, you must iust the little Rootes with Vineger and vrine that is old, couering them againe with earth, and oft digging about them. The vrine of men, if it be kept three or foure moneths, doth wonderfull much good to plants, which if you vse about Vines or Apple trees, it doth not onely bring you great encrease, but also giueth an excellent taste & sauour, both to the fruit and the When trees bear not, or holde not their fruite, a remedie.

wine: you may alſo vſe the mother of oyle, ſuch as is without ſalt, to the ſame purpoſe, which both muſt ſpedely be vſed in winter.

THRA. We ſee that froſtes and miſtes, do often times great harme to trees, haue you any remedy againſt it?

MARIVS. Againſt froſtes and miſtes, you muſt lay vp round about your Orchard, little Fagottes made of ſtalkes, rotten bones, or ſtraw, which when the froſtes, or miſtes, arriſe, may be kindled, the ſmoke whereof anoieth the daunger. You muſt haue alſo dry dounge amongeſt your Mittes, which when the froſt is greate, you may ſet a fire: the ſmoke whereof diſpearſeth the froſt.

THRA. What if the trees be ſicke, and proſper not?

MARIVS. When they haue any ſuch ſickneſſe, they vſe to powre vpon the Rootes, the lees of wine mingled with water, and to ſowe Lupines round about them. The water alſo wherin Lupines haue beene ſod, powred round about, is very good (as *Plinie* ſaith) for Apple trees.

THRA. Trees are oftentimes alſo hurt with wormes.

MARIVS. If your trees bee troubled with wormes, there are diuers remedies, for the iuice of wormewood deſtroyeth the Caterpillers. The ſeedes or grayne, that are ſteped in the iuice of Spengreene, or Houſeleeke, are alſo ſafe from any wormes: alſo Aſhes mingled with the mother of Oyle, or the ſcale of an Oxe, medled with a third part of vinegar. Moreouer they ſay, that the trees that are ſmoked with Brimſtone, or Lime, are ſafe from hurtfull vermine: *Gallonius* like wiſe burnt vpon the coles, driue them away. The blades alſo of Garlicke, the heades being of, ſo burnt (as the ſmoke may paſſe through the Orchard) doth deſtroye the Caterpillers: ſome mingle Soote with the ſeedes, and ſprinkle them with water: *Democritus* writeth, that a woman in her bucleamattie, bigirt, and her Heare hanging about her ſhoulders; if ſhe go bare foote rounde about the place, the Caterpillers will preſently fal: but perhappes I trouble you with theſe toies, or long diſcourſe of hearbes, plantes, and trees, and therefore though there be much more to be ſpoken of, leaſt I ſhould ſeeme to ouer wearie you, I will make an ende.

THRA.

THRA. A trouble? no, you haue done me a singuler great pleasure, in declaring vnto me the right ordring of a Garden, and an Orchard, which not throughly entreated of by others) you haue briefely, and perfectly, to our great commoditie described. And whereas you haue largely spoken of our trees at home, it remaineth for you to say something of the disposing of Woodes. It was my chaunce to passe yesterday, by a great Wood of Okes, and Coppisse, planted in very good order, and hard by, a Willowe grove vpon the side of a Riuer, excellently wel ordered, where the Feelves were enclosed rounde about with great Elmes, which greatly beautifieth your dwelling, and yeeld (I warrant) no small profite: I therfore greatly desire to heare some thing of this part of husbandry.

MARIVS. Though it be without my couenant, and that you demande more then I promised, yet since you force mee, I will not refuse it, least you should thinke I would faile you in any thing. As touching Woods, *Ancus Martius* (as *Petrus Crinitus* writeth) was the first in Rome that euer delt in them: the old Fathers had alwaies a speciall regard of Woods wherfore *Virgil* saith: Of Woods.

Yf that of Woods I frame my song,
Woods vnto Princes doo belong:
Yf that of Woods I list to sing,
Woods may full well beseeme a King.

It was ordained by the Romanes, that the Consuls shoulde haue the charge of the Woods, that there should no Tymber bee wanting for building of Houses, and Shippes, and other Tymber workes, both publique, and private. The state of *Venis* at this day, obserueth the same order, pointing a priuate officer for their Woodes, who hath in charge as well to see to the yeerely planting of them, as to let that there be wanting no Tymber for their necessary vses. The Wood that you tolde me you passed by, is of Okes, Beeches, and other Mast trees: some part serueing for tymber, and other for fewell. Of theise therefore will I first beginne to speake, and then of Olive Groues and Willowes, some of them be wilde, and grow of them selues, not needing any tilling to, but such as daylie experience

erperience ſhewes, are nothing ſo good, as thoſe that are planted. Woodes and Foreſtes, doe chiefely conſiſte of Oke, Beeche, Fyre tree, Byrche, Pine, Pitche tree, Aſhholme, Corke, wilde Olyue, Pedar, Crabbetree, Juniper, Cornell, and Pyrry: other Woodes haue other trees, according to the nature of the ground. The great Wood of Hartſwalde in Germany, as it runneth through diuers Countries, beareth in ſome place onely Oke, in others Beeche, in others Fyrres. The Foreſt of *Arderne* for the moſt parte beareth Oke: *Monteficello*, Larth, Fyre, Cornell, and Tamarice. *Monte D. S. Gothardo*, great abundance of Cheſtnut Trées. Theſe wylder ſorte, though they growe of them ſelues, may yet well be planted, if you haue méete grounde of the Acorne, and the Berry: eache of them liketh ſome one kinde of grounde better then an other, as firſt *Theophraſtus*, and after *Plinie* hath declared. In the mountaines delighteth the Fyre tree, the Cedar, the Larth, the Pitche tree, and ſuch as beare Roſyne: as alſo the Holme, the Terebinth, the Cheſnutte, the Aſhholme, the Oke, the Beeche, the Juniper, the Cornell, and the Dogge tree: though ſome of theſe alſo proſper wel enough in the plaine. The Fyre, the Oke, the Cheſnutte, the Fyrebeeche, the Aſhholme, and the Cornell, growe aſwell in the Valley, as on the Mountaine: vpon the plaines you ſhall haue the Tamarix, the Elme, the Poplar, the Willowe, the Haſell, the Walnutte, the Hornebeame, the Maple, the Aſhe, and the Beeche. You ſhall not lightly ſée the Plome tree, the Apple, the wilde Olyue, nor the Walnutte, vppon the Mountaine, all ſuch as growe as well in the plaine, as vpon the mountaine, are larger and fayrer to the eye growing in the playne, but are better for Tymber, and fruite, vppon the Mountaine, except the Peare and the Apple, (as *Theophraſtus* ſaith:) In Marriſhe grounde delighteth the Willowe, the Alder, the Poplar, and the Pyrrey. And although the moſt Woodes doe ſpring of their owne nature, and acorde, yet are they by planting, labour, and diligence, brought to be a great deale more fayre and fruitfull: for as afore I told you, howe fruite Trées were nourished and brought vp in Impe Gardens, ſo are theſe wilde and fruitleſſe

lesse trées, set and planted for tymber and fewell. He that is disposed to plante a Wood, must first according to his doyle, chuse his sets: and if he haue them not springing of his owne, let him make an Impe Garden of the seedes, enclosing well the grounde with Hedge, Rampire, or Ditch, least Shéepe, Goates, or any other cattell, come in to bite and brouse it: for whatsoeuer they haue once bitten (as it were infected with a deadly poison) perisheth: and therefore those that meane to plant Woods, eyther for tymber, fewell, or mast, must carefully prouide against these hurtfull enemies. The Countrey lawes haue therein well prouided, that where such Springes are, they shall féede no Goates, nor such Cattell. Amongst the Mast trées, and such as serue for tymber, the first place of right belongeth to the Oke, called in Gréeke δρυς, in Latine *Quercus*, in Italian *Quercia*, in Spanishe *Roble*, in French *Chesny*, in Dutch *Eichenbaum*, he that will then plant an Oke Grone, must prouide him of ripe Acornes, not ouer dried, nor faultie, or any waye corrupted: these must he sowe in good ground, well tilled, with as great carefulnesse as he plants his Orchard, and well enclose it, that there come no Cattell in it: which (when they be something growen) you must about Februarie remoue to the place where you entende to plant your Wood: if you cut and proine them, it is thought they will prosper the better for Mast: but if you reserue them for tymber, you must not touch the toppes, that it may run vp the straighter, and higher. In removing them, you must make your trenches a foote and a halfe déepe, couering the Rootes well with earth, taking good héede you neither brusle them, nor breake them: for better you were to rut them. The Oke agreeth well enough with all maner of ground, but prospereth the better in Marshes, and watry places: it groweth almost in all grounds, yea euen in grauell and sande, except it be ouer dry: it liketh worst a fatte ground, neither refuseth it the mountains. We haue at this day an Oke in *Westphalia*, not farre from the Castle of *Alexuan*, which is from the foote to the nereest bowe, one hundred and thirtie foote, and three elles in thicknesse: and an other in an other plant, that being cutte but made a

The Oke.

hundred

hundred Waine loade: not farre from this place, there grew an other Oke of tenne yardes in thicknelle, but not very hie: the Rouers in Germany, were wont to vſe for their Ships, hollowed trées, whereof ſome one (as *Plinie* ſaith) woulde carry thirtie men. The next amongſt the maſt trées is the Beech, in Greéke φηγὸς, in Latine *Fagus*, in Italian *Faggio*, in Spaniſh *Haya*, in French *Fane*, in Dutch *Buchen*, planted almoſt after the ſame manner that the Okes bée. The Maſtholme in Greéke πρῖνος, in Latine *Ilex*, in Italian where it is better knowen *Elice*, in Spaniſhe *Enzina*, in French *Hauſſen*: it groweth hie, if it haue a grounde meete for it: it proſpereth vppon hilles, and likes not the plaine: it beareth Acornes leſſer then the Acornes of the Oke, a leafe like a Baye, and is continually greene. The like hath the Corke trée, in Greéke φελλὸς, in Latine *Suber*, in Spaniſhe *Alcornoque*, in French *Liege*, which is counted amongſt thoſe that beare maſte, the barke whereof wée occupie, for the flotes of our fiſhing nettes, and in Pantofels for winter: all other trées (ſauing onely the Corke) if you ſpoile them of their barke doe die. An other Maſt bearing Oke there is, called in Greéke φηγὸς, in Latine *Quercus ſilueſtrum*, in Frenche *Cheſne*, a kinde whereof ſome thinke the Cerre trée to be, called in Latine *Cerrus*, growing in wilde and barrain places. There are ſome that do number the Cheſtnutte trée amongſt the maſt bearers: but of this I haue ſpoken before. The beſt Maſt is the Oke Maſt, the next the Beech and the Cheſtnutte, then the wilde Oke, &c. all verie good and meete for the fatting of Cattell, ſpecially Hogges. The Oke Maſte, or Acorne, maketh thicke Bacon, ſounde fleſh, and long laſting, if it be well ſalted and dried: on the other ſide, Cheſtnuttes and Beech Maſt, make ſweete and delicate fleſh, light of digeſtion, but not ſo long laſting. The next in the Cerre trée, that maketh very ſound and good fleſh: the maſthome maketh pleaſant Bacon, faire, and weighty: *Plinie* ſaith, that it was ordayned by the lawe of the Tables, that it ſhoulde be lawfull for any man to gather his owne Maſt, falling vpon the grounde of his neighbour, which the Edict of the chiefe Iuſtice doth thus interpreté: that it ſhall be

Beechwood.

Maſt, and his differences.

lawfull

lawfull for him to doe three daies togeather, with this prouiso, that he shall onely geather the Acornes, and do no harme to his neighbour, as *Vlpianus* witnesseth. *Glans* Mast (as *Caius* saith) is taken for the fruite of all trees, as ἀκρόδρυα signifieth with the Greeke, though properly ἄκρος be those fruites that are shelde, as nuts, and such other. Vppon these Masse bearers there groweth also the Gall, in Greeke κύνη, in French *Noix de Galle*, in Italian and Dutch, as in Latine in Spanishe *Agalla*, a little ball, rugged and vneuen without, wherof some be smallie, some hollow, some blacke, some white, some bigge, some lesser. It groweth (as *Plinie* saith) the Sunne rising in *Gemini*, comming all out suddenly in one night: in one day it waxeth white, and if the heate of the Sonne then take it, it withereth: the blacke continueth the longer, and groweth sometime to the bignesse of an Apple: these serueth best to curry withall, and the other to finish the Leather, the worst is of the Oke: and thus of such trees as beare Mast. Now will I come with all the principallest of the other trees, to make vp your Woodes, amongst which are the Elme, and the Willowe: the Elme in Greeke πτελέα, in Latine *Vlmus*, in Italian and Spanish *Olmo*, in French *Orme*, in Dutch *Vlmbaum*, and *Yffenholtz*: the planting whereof, because it is to great vse, and easily growes, wee may not let passe: first, because it groweth well with the Vine, and ministreth good foode to Cattle: secondly (as it is all hart) it maketh good timber. *Theophrastus* and *Plinie*, doe both affirme the Elme to be barraine, peraduenture because the seede at the first comming of the leafe, seemeth to lie hid among the leaues, and therefore it is thought to be some of the leafe (as *Columella* affirmeth.) He that will plante a Grone of Elmes, must gather the seede called *Samara*, about the beginning of March, when it beginneth to waxe yellow, and after that it hath dried in the shadowe two daies, sowe it very thicke, and cast fine sifted mould vpon it, and if there come not good store of Raine, water it well: after a yeere you may remoue it to your Elme Grone, setting them certaine foote a sunder, and to the end that they rote not to deepe, but may be taken vp againe, there must be betweene them certaine little trenches, a foote and a

The Elme.

halfe

halfe diſtance: and on the rote you muſt knitte a knotte, or if they be very long, twiſt them like a Garlande, and being well nointed with Bullockes deung, ſet them, and tread in the earth round about them. The female Elmes are better to be planted in *Autumne*, becauſe they haue no ſeede: at this day in many places, cutting of ſettes from the faireſt Elmes, they ſet them in trenches, from whence when they are a little growen, they gether like ſettes, and by this dealing make a great gaine of them: in the like ſort are planted Groues of Aſhes. The Aſhe in Greeke μελία, in Italian *Fraxino*, in Spaniſh *Freſno*, in French *Fraiſne*, in Dutch *Eſchen*: the Aſhe delighteth in rich and moiſte ground, and in plaine Countries, though it growe well enough alſo in drie groundes, he ſpreadeth out his Rotes very farre, and therefore is not to be ſette about Corne ground, it may be felled euery thirde or fourth yeare, for to make ſtaues for Pikes. The Aſhe groweth very faſt, and ſuch as are forwardes are ſet in Februarie, with ſuch young plantes as come of them, in good handſome order ſtanding aroue: others ſet ſuch Aſhes as they meane ſhall make ſupporters for Garden Vines, in trenches of a yeare olde, about the Calendes of March: and before the thirty ſixth moneth they touch them not with any knife, for the preſeruing of the Braunches: after euery other yeare it is proyned, and in the firſt yeare ioyned with the Vine: if you lie to cuttie awey the braunches, they will growe to a very goodly height, with a roonde body, ſmothe, plaine, and ſtrong: *Plinie* writeth of experience, that the Serpent doth ſo abhorre the Aſhe, that if you enclooſe fire and him with the braunches, he will rather runne into the fire, then goe through the boowes. Byrch, called in Greeke ἰτέα, in Latine *Betula*, as *Theophraſtus* writeth in his fourth booke, is a tree very meete for Willoges: it proſpereth in coulde countries frohie, ſnowie and grauelly and in any barraine ground, wherefore they vſe in barraine groundes, that ſerue for no other purpoſe, to plant Byrches: it is called in Italian *Bedolla*, in Dutch *Byrken*, in French *Bouſe*, Pine Wlods, Fyre Wlods, Pytch tree, and Larch, are common in Italy about Trent. The Pine tree in Greeke πίτυς or πεύκη, in Latine *Pinus*, in Italian and Spaniſh *Pino*, in Dutch *Hartz-baum*,

Aſh groues.

The Pine

beare, is planted of his kernels, from October to Januarie: in hote and dryie Countryes, and in colde and wet places, in Februarie or March: the kernelles must bee gathered in June, before the clogges do open, and where you list to sowe them, either upon hilles or elsewhere: you must first plowe the ground and cast in your seede, as ye doe in sowing of Corne, and couer them gently with a light Harrow or a rake, not couering them aboue a hand broade: you shall doe well, if you lay the kernels in water three daies before. The kernelles of the Pine are called in Greeke κλωνοτες and κωνος in Spanish *Pinones*. The Firre tree in Greeke ελατη, in Latine *Abies*, in Italian *Abete*, in Spanish *Abeto*, in Dutch *Deamen*, loueth not to haue any great adoo made about it: if you be too curious in planting of it, it will growe (as they say) the worse, it growes of his owne kernell in wilde mountaines, plaines, or any where. The Pitchtree in Greeke πευκη, in Latine *Picea*, in Italian *Pezzo*, in Spanish *El pino de que se haza lapez*, in Dutch *Rododemem*, is a tree of the kind of Pines, and very like to the Pine, sweating out his Rozen as he doth: for there are fiue kinds of these Rozen trees, the Pine, the Pitch tree, the wilde Pine, the Firre, the Larch, and the Larre tree, the planting of them all is alike. The Alder, a tree also meete for woods, in Greeke κλήθρα, in Latine *Alnus*, in Italian *Anno*, in Dutch *Elsen*, in French *Aulne*, in growth like plaine and marish places neare to Riuers. *Theophrastus* saith, it yeeldeth a fruitfull seede in the ende of Sommer: many places are commodiously planted with Poplar, whereof there are two sortes the white called in Greeke λευκη, and the blacke αιγειρος: the white is called with the Italians *Populo bianco*, with the Spaniardes *Alamo blanco*, the blacke of the Italians, *Populo negra*, of the other *Amalo negrillo*, in French *Peuplier*, in Dutch *Peppelen*, it is planted of the branches and sottes, and delighteth in watry places, or any other grounde it proueth very fall: the blacke hath the ruggedder bark, his leaues round while hee is young, and cornered in his age, white underneath, and greene aboue. The timber hereof is good for buildinges, specially within doores: his wood is white within, and the rinde blackish, whence he hath his name. *Theophrastus* addeth a thirde

Fyr tree.

The Pitchtree

The Alder.

Poplar, white and blacke.

kinde

kinde called in Greeke πτελεα. which ſome call the Poplar of *Libya*, and of the *Alpes*, it hath a rugged barke like the wilde Perry, a leafe like Ivy, and is in colour like a darke greene, ſharpe at the one end, and broade at the other. The blacke Poplar groweth in great plentie about the lower partes of the Rhyne, though *Homer* call the Willowe a fruiteleſſe tree, becauſe his fruite turneth into cobwebs before they be ripe: yet is the ſoueraintie giuen him amongſt Woodes that are vſually ſelde. *Cato* giueth the thirde place of huſbandry groundes to the Willowe, preferring it either before the Olyue Groue, Corne ground, or Meddow, for it is oftner to be cut, and groweth the thicker, neither is there ſo great gaine with ſo little charge in any thinge: it delighteth in watry grounds, dark and ſhadowy, and therefore is planted about Riuers and Lakes, howbeit it groweth in Champion, and other grounde: it is planted of yong ſettes, a foote and a halfe long, and well couered with earth: a wette ground requireth a greater diſtance betwixt them, wherein you ſhall doe well to ſet them fiue foot a ſunder, in order like the ſinke vpon a Die: in the dry ground they may be ſette thicker together, yet *Columella* woulde haue them fiue foote diſtaunce for paſſing by them. There are two ſortes of Willowes, one ſort enduring for euer, called Oſier, ſeruing for making of Baſkets, Chaires, Hampers, and other countrye ſtuffe: the other kinde growing with great and high branches, ſeruing for ſtaies to Vines, or for quickſettes, or ſtakes of Hedges, and is called ſtake Willowe: it is planted both of the twigge and of the ſtalke, but the ſtalke is the better, which muſt be ſet in a moiſte ground well digged, two foote and a halfe in the ground before it ſpring, and when the twygges are bare, you muſt take them from the tree when they be very dry, otherwiſe they proſper not ſo well: theſe ſtakes or ſettes being taken from the yong ſtocke, that hath been once or twiſe cut, and in thicknes as much as a mans arme; you muſt ſet in the grounde three foote, or a foote and a halfe deepe, and fiue foote a ſunder, laying good mould about them, fence them well, that there come no cattell to pill off the barke of them. After three or foure yeares you may pull them, whereby they will.

Wyllows.

Oſyar.

growe,

growe and spread the better, and so you may continually cut them euery fiue, or sixe yeare, whereof you may make setts for planting of more, for the old ones are not so good to be occupied. The time of cutting of them, is from the fall of the leafe vntill Aprill, the Mone encreasing, and in Westerly, or Southerly windes; for if you doe it, the winde being in the North, we finde by experience they will not growe so well: you must cutte them cleane away, that the olde braunches hurte not the yong springes: some thinke the yong Willowe to growe the better the nerer the grounde, and the smother he is cut. The Osier commonly groweth of his owne selfe, and is also planted of his rodes, in waterie and marishe groundes, the earth raised vppe, and laied in furrowes; it is planted and springes most plentifully, where the earth is beaten vppe with the rage and ouerflowings of the water: it serueth as a sure defence for making of Bankes and Walles in Marshes, and that chiefely in March, the Mone encreasing: the Osier may be cutte euerie yeere, or euery two yeere if you will. Lo, here haue you concerning Woodes what needefullest are for our Countriemen to plant: for as for Woods of Cedar, Cipresse, and other strange trees, it is not for our Husbands to busse themselues about: swette and riche groundes that are meete for Corne, is also good to bee planted with Okes, Beeche, Willowe, and Popler, although the Oke and the Beeche refuse hillie, and lighter ground: Sandy, and barraine groundes, are good for Birche, Bramble, Broome, and Heath, as I haue sufficiently saide before. Now perhappes you would haue me proceede with Coppise Woodes, that are continually to be feld.

For planting of Osiers.

THRA. I would, if it were no paine to you.

MARVS. Coppise, or sale Wood, were first brought vp (as *Plinie* saieth) by *Q. Martius*. This kinde of Woode groweth commonly of his owne accorde in forrestes, and watrie places: but all Woodes are not for this purpose, for some trees there are, which if you cutte and poule often, will fade and die, as the Ashe, the Iuniper, the Cherie, the Firre, the Apple, and the Pirrie: and some againe if they be not cut, will perish: the Vine requireth yeerely cutting, the Oliue, the Mir-

tell, and the Pomegranate, euery other yeere. In cutting of them (as they are diuers) so is their order for the Oke, as he groweth slowlie, so is he not to be cut, before he be of seuen, or eight yeres growth: and the nearer the grounde you cut him, the better he growes; though he may be polled seuen or eight foote aboue the ground: The like is of the Beech, sauing that he may sooner bee cut. The greate Willow, and the Poplar, are cut after one sort, as I shewed a little before: though the Oker may be cut euery two yeere, or euery yeere. The chestnut may bee felde euery seuenth yeere, both for fewell, or for Vine staues, trees are cutte and polde sundrie waies, for either they are felde close by the grounde, or the bodie is polde, when it comes to be of the bignes of a mannes arme or more, as the Willowe is. Coppiced Woodes are commonly seuered into so many parcels, as may serue for yeerely felling, some still growing while others are a felling, and because some of them grow sooner then other some, euery sort hath his place, and his season appointed. Some are felled euery fourth yeere, some euery fifth yeere, as the Willowe, the Poplar, the Alder, and the Birch tree, some in seuen yeere, as the chestnut, and some in more, as the Oke. It remaineth, that I nowe shewe you the manner of felling of timber, and what timber is meetest for euery worke.

THRA. I haue a great desire to heare what time is meetest for felling of timber, which matter (as they say) is the long endeuring of it: after you I would know what timber is meete for euery purpose.

MARIVS. The season of felling, no doubt is to great purpose, whether it bee for timber or fewell: for such trees as are felde either in the Spring, or in Sommer, though they seeme dry without, are notwithstanding full of moisture, and wettenesse within, which in burning, will neuer make good fire: and therefore for Coppice and fire Wood, your best felling is in Winter: and for building, it is best cutting of your trees in December, and Januarie, the Mone being in the wane, from the twentie, to the thirtie day. Yet are there some that saie, they haue founde by experience, that trees being cut in Januarie, are full of Sappe: and therefore thinke it bet-

ter.

ter either to cut them before, or after. *Cato* saith, the best time is about the twentith of December, for the Timber Tree that beareth fruite, is best in season when his fruite is ripe, and that which hath no seede, when it pilles it is time to cutte. Such as are flawed, serving for Pillers of Churches, or other round workes, must be cutte when they spring: Shingles, and such as the Hatchet must flawe, are to be cutte betwixte mydde Winter, and the beginning of the Westerne Windes. *Plinie* affirmeth the best season for felling of timber, to be while the Moone is in coniunction with the Sunne. *Vitruuius* an excellent fellowe in building, doth will you to fell your timber from the beginning of *Autumne*, till the time that the Westerne windes begin to blowe, the which windes begin to blowe (as *Plinie* saith) about the sixt daie of Februarie: for in the Spring, all Trees are as it were with child, and bend all their force to the putting out of their leafe, and their fruite. Since then they be sappie, and not sounde, by the necessitie of the season, they are made by the reason of their lotsenesse feeble, and of no force: euen as the bodies of women, after they haue conceiued, from their conception, till the time of their deliuerance, are not iudged to be sounde, or perfite. In like sort the Trees in *Autumne*, when the fruit and leaues begin to fall, the Moist drawing from the earth their sufficient sustenance, are reduced againe to their old estate: beside, the force of the aire in Winter doth soften and make soune the Trees, and therefore is it then thought the best time to fell your timber. The manner of cutting of it is this, first to cut it till you come to the middes of the pithe, and so to let it stande, that the sappe that is in it, may descende and drappe out: so shall not the moisture within putrifie, nor corrupt the timber, but passe cleane away. When you haue cutte it, and you see it dry, that it hath left dropping, you shall cutte it downe; and so shall you be sure it shall bee free from rotte. There are some maisters in building, that thinke it best after you haue hewen out your timber in bodies, to lay them in water for three or foure dayes, or if they be greate, for a longer time. Eight cubites deepe and being ordered in this sorte they shall neither (sayeth he) be rotten, loathsome nor

THRA. Now let us heare what treaſure beſt for timber.

MARVS. There are diuers and ſundrie vſes of timber: ſuch as are barreine, are better then the fruitfull, excepting thoſe ſortes where the graſſe beareth, as the Cipreſſe, and the Cornell; in all trées the partes that grow toward the North, are harder, and ſounder, which are almoſt couered with moſſe, as with a cloke againſt the cold: the worſt are thoſe that growe in ſhadowie and watriſhe places, the maſſier and better during are they that growe againſt the Sonne: And therefore *Theophraſtus* deuideth all timber into three ſortes, into clouen, ſquared, and round, of which the clouen doo neuer rent nor roame: for the pithe being bared, drieth vp and dieth: they alſo endure long, becauſe they haue little moiſture. The ſquared, and the round, or the whole timber, doth roame and gape, ſpecially the round, becauſe it is fuller of pithe, and therefore renteth and roameth in euery place. And ſuch like Trées as they vſe for pillers, and maine poſtes, they firſt rubbe ouer with Bullockes doung to ſeaſon them, and to ſucke out the ſappe: for the moiſture doe alwaies come ſooner then the drie, and drie better to be ſaued then the greene, except the Oke, and the Bore, that doe more fill the teeth of the Adze, and reſiſt it. Some againe refuſe to be glued either with them ſelues, or any other, as the Oke, which cleaueth as ſone to a ſtone, as any Wood, neither doe they well cleaue, but to ſuch as are of like Nature: to be dried, the greene is worſt then the drie: the light and the drie are harder tobe cut: for bendes and Withes, the Willow, the Withie, the Birche, the Elme, the Poplar, the Vine, the clouen Rode, the Bramble are beſt: the Haſell will alſo ſerue but the firſt is the Willowe: they haue alſo a certain hardneſſe and fairneſſe, meeteſt to be vſed in greater workes. Among thoſe that ſerue for timber, are moſt in vſe the Aſhe, the Oke, the Pine, the Larch, the Elde, the Elme, Willowe, Cedar, Cypreſſe, the Bore, Birche, Plumtree, Aliar, Aſhe, white Oke, Date tree, Beeche, white Elme, Paſt holme, Walnut, Maple, and Polly, and diuers others, vſed accordyng to their nature, and the maner of the country where they growe. The ſtructure whereof I haue alſo ſpoken before, wherein our Author

timber

timber is meete for diuers workes, and greately esteemed for his heighth and bignesse, whereof are made the Ship Maſtes, and Pillers for houſes: For it is verie ſtrong, and able to abide great force. It is vſed alſo in building, for greate Gates and doore poſtes: in fine, good for any building within, but not ſo well enduring without doores, and very ſone ſette afire. They vſed (as *Theophraſtus* ſaieth) in the olde time to make their Gallies and long Boates of Firre, for the lightneſſe ſake, and their ſhippes for burden, of Pine tree, and Oke. Of Oke, I haue ſpoken a little before, the timber whereof is beſt, both for inwarde buildings, and for the weather, and alſo well enduring in the water: *Heſiodus* would haue yokes made of Oke. The wilde Oke ſerueth alſo well in water workes, ſo it be not neare the ſea: for there it endureth not, by reaſon of the ſaltneſſe: it will not be pearced with any Augur, except it be wette before: neither ſo will it ſuffer (as *Plinie* ſaieth) any Naile driuen in it, to be plucked out againe. The Maſtholme in Greeke πρινος, a tree well knowne in Italie, the Wood whereof is tough and ſtrong, and of colour like a darcke redde, meete (as *Heſiodus* ſaieth) to ſerue for Plow ſhares: it maie alſo be made in Wainſcot, and Paile boorde. The Larſhe tree in Greeke λαρις, in Italian *Larice*, in Dutche *Lerchenbaum*, was in the olde tyme greatly eſteemed about the riuer *Poe*, and the Gulfe of *Veniz*, not onely for the bitternelle of the Sappe, whereby (as *Vitruuius* ſaieth) it is free from corruption and wormes, but alſo for that it will take no fire, which *Mathiolus* ſeemeth with his argumentes to confute. It is good to ſuſtaine greate burdens, and ſtrong to reſiſt any violence of weather, howbeit they ſaie, it will rotte with ſalte water. The Eſcle is a kind of Oke, called in Greeke πλατυφυλλος, in Latine *Eſculus*, is ſone hurte with any moiſture: the Elme, the Willowe, and the Poplar, whereof I haue ſpoken before, will verie ſone rot, and corrupt: they will ſerue well ynough within doore, and for making of Hedges. The Elme continueth very hard, and ſtrong, and therefore is meete for the chackes and poſtes of Gates, and for Gates, for it will not bowe, nor warpe: but you muſt ſo diſpoſe it, that the toppe may ſtand downeward: It is meete (as

The Firre

The Maſt holme.

The Larſh.

Heſiodus ſaith) to make Plowe handles of. The Aſhe (as *Theophraſtus* ſaith) is of two ſortes, the one tale, ſtrong, white, and without knottes, the other more full of Sappe, ruggedder, and harder. The Baie leafe (as *Plinie* ſaith) is a poiſon to all kinde of Cattell: but herein he is deceiued, as it ſhould appeare by the likelineſſe of the name, μῆλος or σμῆλος is the yong Tree, whoſe leaues (as is certainly tried) killeth all ſuch beaſtes as chawe not the cudde. Aſhe beſides his manifolde vſe other waies, maketh the beſt and faireſt horſemennes ſtaues, whereof was made the ſtaffe of *Achilles*, which *Homer* ſo greatly commendeth: it is alſo cutte out in thinne boordes. The Beeche, whereof I haue ſpoken before, although it be brittle and tender, and may ſo bee cutte in thinne boordes and bent, as he ſeemeth to ſerue onely for Caſkettes, Boxes, and Coffers, his colour being very faire, yet is he ſure and truſty in bearing of weight, as in Axeltrees for cartes, or waines. The barke of the Beeche, was vſed in the olde time, for veſſelles to gather Grapes in, and other fruite, and alſo for Cruettes, and veſſelles to doe ſacrifice withall: and therefore *Curius* ſwoare, that he brought nothing away of all the ſpoile of his enimies, but one poore Beechen Cruet, wherein he might ſacrifice to his gods. The Alder is a tree with a ſtreight bodie, a ſoft and reddiſh woode, growing commonly in the watry places, it is chiefely eſteemed for foundations, and in water woorkes, becauſe it neuer rotteth lying in the water: and therefore it is greatly accounted of among the Venitians, for the foundations of their places, & houſes: for being driuen thicke in piles, it endureth for euer, and ſuſtaineth a wonderfull weight. The rinde is plucked off in the ſpring, and ſerueth the Diar in his occupation: it hath like knots to the Cedar, to be cut and wrought in. The Plane tree is but a ſtranger, and a newe come to Italie, brought thither onely for the commoditie of the ſhadow, keeping off the Sunne in Sommer, and letting it in, in Winter. There are ſome in *Athens* (as *Plinie* ſaith) whoſe branches are 36. cubites in breadth: in *Lycia* there is one for greatneſſe like a houſe, the ſhaddow place vnderneth containing 81. foote in bigneſſe: the timber with his ſoftenelle hath his vſe but in water, as the Alder, but drier the the Elme,

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the Aſhe, the Mulberie, and the Cherie. The Linder, in Greeke πτελεα, and ſo in Italian, in Spaniſh *Latera*, in Dutch *Lynden*: this Tree *Theophraſtus* counteth beſt for the workeman, by reaſon of his ſoftneſſe: it breedeth no wormes, and hath betwirt the Barke and the Woode, ſondrie little rindes, wherof they were wont in *Plinies* time to make Ropes and Withes. The Birch is very beautifull and faire: the inner rinde of the tree called in Latine *Liber*, was vſed in the old time in ſteade of Paper to write vpon, and was bounde vppe in volumes, whereof bookes had firſt the name of *Libri*, the twigs and bowes be ſmal and bending, vſed to be carried before the Magiſtrate among the Romanes, at this day terrible to poore boies in Schooles. The Elder tree called of *Dioſcorides* Ακτη, in Latine *Sambucus*, in Italian *Sembuco*, in Spaniſhe *Sauco*, in Frenche *Suſeau*, in Dutche *Hollenter*, doth of all other trees ſoneſt and eaſieſt growe, as experience beſides *Theophraſtus* doth teach vs, and though it be very full of pith, yet the wood is ſtrong and good: it is hollowed to diuers vſes, and very light ſtaues are made of it. It is ſtrong and tough when it is dry, and being laid in water, the rinde commeth off as ſone as he is dry. The Elder wood is very harde and ſtrong, and chefely vſed for Bare ſpeares, the roote (as *Plinie* ſaith) may be made in thin boordes. The Figge tree, is a tree very well knowen and fruitefull, not very hie, but ſomewhat thicke (as *Theophraſtus* ſaieth) a cubite in compaſſe, the tymber is ſtrong, and vſed for many purpoſes, and ſith it is ſoft, and holdeth faſt whatſoeuer ſticketh in it, it is greately vſed in targettes. Boxe tree, in Greeke πυξος, in Italian *Boxo*, in Spaniſhe *Box*, in Frenche *Bouys*, in Dutch *Buſſbaum*, an excellent tree, and for his long laſting, to be preferred before others. The Boxe that turned is, ſaith *Virgill*. Iuniper, called both of *Theophraſtus* and *Dioſcorides*, Αρκευθος, Iuniper. becauſe it driueth away vermine: for with his ſauor, toades and ſnakes, and ſuch like are driuen away, in Latine it is called *Iuniperus*, in Italian *Ginipro*, in Spaniſhe *Enebro*, in Frenche *Geneure*, in Dutch *Wachoiter*: it is very like to Cedar, but that it is not ſo large, nor ſo hie: though in many places it groweth to a great height: the timber wherof well endureth a C. yeeres.

And therefore *Hanibal* commaunded, that the temple of *Diana* ſhould be built with rafters and beames of Juniper, to the end it might continue. It alſo keepeth fire a long time, in ſo muche as it is ſaied, the coales of Juniper kindled, haue kepte fire a yeere together: The Gumme whereof our Painters vſe.

The Cedar. The Ceder Tree, in Greeke κέδρος, in Latine *Cedrus*, and almoſt like in other tongues: the hardneſſe of this timber is onely praiſed, and that it will neither rotte, nor be wormme eaten, but continue euer. Salomon built that noble Temple of God at Hieruſalem of Cedar: It is very meete for the building of Palaces and Caſtels: the Cedar, the Eben, and the Oline tree, doe neuer chinke nor coame. Images of Goddes and Sainctes were alwaies made of Cedar, becauſe it euer yeeldeth a moiſture, as though it ſweat. *Theophraſtus* writeth of Cedars in *Syria*, of foure elles and more in compaſſe. The Rozen and Pitche of the Cedar tree, is called in Greeke κέδρια.

The Cypreſſe. The Cypreſſe, and the Pine, do endure a long tyme without eyther wormme, or rotting: *Plinie* commendeth Gates of foure hundred yeares olde.

The Pine The pine (ſaieth *Theophraſtus*) is of greate ſtrength, and very meete for the ſtreightnes and handſommeſſe, to be employed in building.

The Walnut tree. The Walnut tree is a great tree, and commonly knowne, whoſe timber is much vſed in ſielings and tables. *Theophraſtus* writeth, that the Walnutte tree before it falleth, maketh a certain kinde of noiſe, which it once happened in *Antandro*, the people beeyng greatlie afrayde, fledde ſodainly out of the Bathes.

The wild Olyue. The wilde Oline, in Greeke ἀγρέλαια, in Latine *Oleaſter*, in Italian *Olino Saluatico*, in Spaniſhe *Azenuche*, in Frenche *Olive ſauuage*, in Dutche *Wilder Olyboom*, of his Wood is made the haftes and handles of toombles and Augures.

The Holly. Holme, or Holly, is a tree whoſe leaues are full of prickles round about the leafe, and the barke, being both continually greene, the berries like the Cedar: of the rind of the rootes they make Birdlime: the Wood is very harde, the braunches will well wounde and bowe, and therefore verie excellent good for quicket hedges: the Dutchmen call it *Hulſen*.

The Maple. The Maple, called *Theophraſtus* σφένδαμνος, in Dutche *Maſſelterbaum*, for the hardneſſe of the wood is next to the Cedar, ma-

uing

uing a very faire and pleasant greine, of the resemblance called Peacockes taile: with this wood, tables are couered most gorgeous to the eies, and other fine workes made, specially of the knobbes or wennes that growe out of it, called *Bruscon* and *Mollusco*: of which the knobbes hath the faireſt and the more courled graine. *Mollusco* is a more open greine, and if so be it were of sufficient breadth for tables, it were to be preferred before the Cedar: now it is but seldome seene, and that in writing tables, or about beddes. There is also a knubbe, or a wen growing vpon the Alder, but a great deale worse then that of the Maple. The Date tree, whereof we haue spoken before, hath a very softe wood. The Corke hys timber is tough: but now for a farewell, I will shew you what workes euerie timber is meete for. The Firre, the Pine, and the Cedar, serue for Shippes for Galleis, and Lighters, (as *Theophrastus* saith) are made of Firre, for the lightnesse sake: Shippes of burden, are made of Pine. Vpon the Frenche and Germanie seas, they chiefly vse Oke about their Shippes: the selfe-same timber also serueth well for building of houses, specially the Cedar, and the Cipresse. The Firre, the Poplar, the Ash, & the Elme, are meete for the inner partes of the house, but they serue not so wel in the weather, as the Oke doeth. For conueighances of water, the Alder, the Pine, and the Pitche tree, are best made in Pipes: being well couered in the earth, they last a wonderfull while, but if they lye vncouered, they soner perish: The Oke also, the Beeche, and the Walnutte, endure very well in the water. The Timber that longest endureth, is the Oliue, the Oke, the wilde Oke, and the Waltholme: For as *Plinie* witnesseth, the Oliue hath beene seene to stand two hundred yeeres, and like the Cedar, and the Cypresse, as hath been saied before: for Rafters and Portisse peeces, the Elme and the Ashe, by reason of theyr length serues best. The best to beare weight, is the Fyrre, and the Larche, which how so euer you laie them, will neither bend, nor breake, and neuer faile, till wormes consume them. Contrariwise, the Oliue Tree, and the Oke, will giue and bende, and so will the Poplar, the Willow, the Elme, and the Birche. The Date (a worthie Tree) bendeth vp againste his burden

The Date tree
The Corke.
What turne each timber serues
For ships.
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The Maple.

uing

uing a very faire and pleasant greine, of the resemblance called Peacockes taile: with this wood, tables are couered most gorgeous to the eies, and other fine workes made, specially of the knobbes or wennes that growe out of it, called *Bruscon* and *Molluscon*: of which the knobbes hath the faire and the more courled graine. *Molluscon* is a more open greine, and if so be it were of sufficient breadth for tables, it were to be preferred before the Cedar: now it is but seldome seene, and that in writing tables, or about beddes. There is also a knobbe, or a wen growing vpon the Alder, but a great deale woorse then that of the Maple. The Date tree, whereof we haue spoken before, hath a very softe wood. The Corke hys timber is tough: but now for a farewell, I will shew you what workes entire timber is meete for. The Firre, the Pine, and the Cedar, serue for Shippes for Galleis, and Lighters, (as *Theophrastus* saith) are made of Firre, for the lightnesse sake: Shippes of burden, are made of Pine. Vpon the French and Germanie seas, they chiefly vse Oke about their Shippes: the selfe-same timber also serueth well for building of houses, specially the Cedar, and the Cypresse. The Firre, the Poplar, the Ash, & the Elme, are meete for the inner partes of the house, but they serue not so wel in the weather, as the Oke doeth. For conueighances of water, the Alder, the Pine, and the Pitche tree, are best made in Pipes: being well couered in the earth, they last a wonderfull while, but if they lye vncouered, they soner perish: The Oke also, the Beeche, and the Walnutte, endure very well in the water. The Timber that longest endureth, is the Olive, the Oke, the wilde Oke, and the Wallholme: For as *Plinie* witnesseth, the Olive hath beene seene to stand two hundred yeeres, and like the Cedar, and the Cypresse, as hath been saied before: for Rafters and Portisle peeces, the Elme and the Ashe, by reason of theyr length serues best. The best to beare weight, is the Fyrre, and the Larche, which how soeuer you laie them, will neither bend, nor breake, and neuer faile, till woormes consume them. Contrariwise, the Olive Tree, and the Oke, will giue and bende, and so will the Poplar, the Willow, the Elme, and the Birche. The Date (a worthie Tree) bendeth vp against his burden

The Date tree

The Corke.

What turne each timber serues

For ships.

For houses.

For water courses.

For bearing of weight.

burden. The Poplar on the other ſide, giueth at euery light thing. The Elme, and the Aſhe, though ſlowly are eaſely bent. Theſe alſo are eaſely wounde & bent: the Willowe, the Birch, the Brame, the Oke, and the Oken boordes. Shyngles, to couer houſes withall, are beſt made of Oke, Beech, and ſuch others as beare Walke: and alſo of ſuch as yelde Rozen, as the Pine, and the Pitch tree: the Pitch tree, and the Oke, ſerue beſt for Cuppes, Tankardes, and ſuch like. Thoſe that are cutte for Wainſcot and thin boordes, the Cerre tree, the Terebinth, the Maple, the Bore, the Date, the Walkholme, the roote of the Elder, and the Popler. For the beautifying of Tables, ſerueth chefely the Maple, the Aſhe, the Walnutte, and ſometimes the Cherie, and the Peare: but the pꝛecioueſt are the Cypreſſe, and the Cedar Tables. For Arreitrees, Wheeles, and Spoakes, ſerueth the Oke, the Maple, and the Beeche. *Virgill* doth alſo appoint the Cedar, and the Cipreſſe to this vſe. Hereof they make the Spoakes of Wheeles, and hereof Carts and Waines. The ſelfeſame Timber alſo ſerueth (as *Heſiodus* ſaith) for Plowes, Pokes, and Wagons: but that hee addeth herevnto the Aſhe, and the Cerre tree, and as the Aſhe for his ſoftneſſe, ſo the Walkholme for his hardneſſe. For Pullies, Wimbles, Sheathes, and Wallettes, the meteſt are the wilde Olyue, the Bore, the Walkholme, the Pedar, the Elme, the Aſhe, the Maple, and the Bramble: but the greater ſort of Wallettes, or Beetles, and the Wheeles, and Pullies for Mils, and Welles, are made of Pine, and Walnutte tree. Cato woulde haue the Waines and Cartes made of Holly, Baye, and Elme. *Hyginus* would haue the handles, or ſtaeles of Huſbandmennes toles, made of Dogge tree wood, Holme, Cerre tree, and (which we haue commonly in vſe) Bore. Targettes (as *Theophraſtus* ſaith) made of Willowe, and Vine, for being pearced, they cloſe the harder togither: but the Willowe is the lighteſt, and therefore the better. The Figue tree alſo, and the Lindre, the Birch, the Poplar, and the Elder, ſerue as well for Targettes. The beſt wood for Haſelmens ſtaues is the Aſhe, & (as *Virgill* ſaith) for valiant ſtaues, the Myrtil: the Ewe tree ſerueth (as the ſame *Virgil* witneſſeth) for Bowes.

For ſhingles.

For Tables.

For Axeltrees, Yokes, & Plowes.

For hafts, and handels.

For Targets.

For chaſing ſtaues.

The

The Ewe Tree for the Persian bowe they bend.

For Gates, they vse the Elme: for Pampers, or Basketes, all such as easily bend. For Cuppinges and Rafters of houses, the Elme: and the Ashe for thinne boorde, the best to cleaue the Firre, the Poplar, and the Beeche: for long during, and abiding the weather, and standing in water, the Oke is commended, for which the other serue not, saue for the water, the Beeche, and the Alder: for fire, and light, are vsed the Firre, the Pitch tree, and the Pine. The best coles are made of the fattest wood, as the Oke, and the wilde Oke: but the finers rather desier the coles that are made of the Pine tree, because they better abide the blowing, and die not so fast as the other. The Cerre tree, though the timber be of no great vse, yet serueth it well to make cole of for the Brasse Forges, because as soone as the Bellowes leaue, the fire ceaseth, and there is little waste in it: but for building, the timber thereof is altogether vnprofitable, because it doth easily breake, and moulder away: but being in postes wel hed, it serueth well enough within doore. The aptest to take fire, is the Figge tree, and the Oliue tree: The Figge tree, because it is fast and open: the Olive tree, for the fatnesse and the fatnesse. The Larche tree (as *Vitruuius* saith) resisteth the fire, though *Mathiolus* (as I saied before) goeth about to disproue it. In all the bodies of trees, as of liuely creatures, there is skinne, senewes, blood, flesh, vaines, bones, and marrow: their skinne is their barke, of great vse among countrie people: the vesselles that they gather there Wines and other fruites in, they make of the barke of Linde tree, Firre, Willowe, Beeche, and Alder. The Oake hath the thickeste barke, which though he lose, he dieth not, for so beneficiall hath nature beene to him, that because he is commonly spoiled of his barke, she hath giuen him two barkes. Of his barke, are made Pantoffels, and Slippers, and Floates for fishing nettes, and Angles: if the barke be pulled off, the wood sinkes; but the barke alwaies swimmeth. The next to the rinde in most trees, is the fat, the softest and the newest part of the tree, and most subiect to wormes: therefore it is commonly cutte away. The sappe of the tree, is the blood, which is not alike in all trees, for in the

For water woorkes.

For coling.

The bark.

Figge

Figge tree it is milkie, whiche ſerueth as a Rennette for Cheeſe. In Cherie trees, it is gummie: in Elmes, ſaltiſhe: in Apple trees, clammie and fatte: in Vines, and Peare trees, watrilh: they commonly ſpring the beſt, whoſe Dappe is clammieſt. The iuice of the Mulberie, is ſought for (as *Plinie* ſaith) of the Phiſitions. Nerte to the fatte, is the fleſhe, and nexte to that, the bone, the beſt parte of the timber: all trees haue not any greate quantitie of this fatte and fleſhe, for the Bore, the Cornell, and the Olive, haue neither fatte, nor fleſh, nor marrowe, and very little blod: as neither the Seruiſſe, and Alder, haue any bone, but both of them full of marrowe. Reedes for the moſt parte haue no fleſhe at all: in fleſh of trees, there are bodie vaines and arteries, the vaines are broder, and fairer: the arteries are onely in ſuch trees as will cleaue, by meanes of which arteries it commeth to paſſe, that the one ende of a long beame laied to your eare, if you do but fillip with your finger vpon the other end, the ſounde is brought forthwith to your eare, whereby it is knowne, whether the peece be ſtraight and euen or not. In ſome trees there are knottes on the outſide, as the Wenne, or the kernell in the fleſh of man, in the which there is neither veine, nor arterie, a hard knoppe of fleſh being clong, and rolled vp in it ſelfe: theſe are moſt of price in the Ceder, and the Maple. In ſome, the fleſh is quite without veines, hauing only certaine ſmall ſtringes, and ſuche are thought to cleaue beſt: others, that haue not their ſtrings, or arteries, will rather breake then cleaue: as the Vine, and the Olive, will rather breake then cleaue. The whole bodie of the Figge is fleſhie: as the bodie of the Maltholme, the Cornell, the wilde Oke, the Mulberie, and ſuche others as haue no pith, is all bonie. The graine that runneth ouerthwart in the Beeche, was taken (as *Plinie* ſayeth) in the olde time for his arteries.

THRA. There are other commodities beſide the timber to be gathered of theſe trees.

MARIVS. Verie true: (For as I ſaied before) of the Medlar, the Oke, the Cheſtnut, the Pine, and the Beech, theſe trees that growe in the woodes, beſides their timber, beare fruits alſo, good and meete to be eaten. So of the Firres, the

Pitche

Pitche trées, and the Pines, we gather Rozen and Pitch, to our greate commoditie and gaine: as of the Oke, the Beeche, the Chestnut, the Poplar, and the Pine, we haue fruite both meete for man, and also good for feeding of Hogges, and other cattell. In time of dearth, both our forefathers, and we, haue tried the good seruice, that Acornes in breade hath done, yea, as *Plinie* and others haue written, they were wont to bée serued in amongst fruite at mennes tables. Neyther are we vnknowen what great gaines some countries get by Acornes, Rozen, and Pitche: The Gall also groweth vppon these Acorne bearing trées, whereof I haue spoken before. Amongst all the trées out of which runneth Rozen, the Terre trée, a kinde of Pine, is fullest of Sappe, and softest for the Pitche, both meete for fire, and light, whose boordes wée vse to burne in steade of candels. The Cedar sweateth out Rozen and Pitche, called *Cedria*. Moreouer, of trées, is Birdelime made, the best of the Terre trée, the Mastholme, and the Chestnutte, specially in the Woodes about *Sene*, and neere the Sea side, where they are carefully planted in great plentie, by the Birdlime makers: For they gather the berries from the trées, and boile them, till they breake, and after they haue stamped them, they washe them in Water, till all the flesh fall away. *Plinie* affirmeth, that it groweth onely vppon Okes, Mastholme, Skaddes, Pine trées, and Firre. Birdelime is also made of the rootes of certaine Trées, specially of the Holly, whose rootes and barkes withall they gather, and lay them vp in Trenches, couered with leaues in a very moiste ground (some doe it in doung) and there they let them lie till they rotte, then take they them out and beate them, til they ware clammie, and after washe them in warme water, and make them vp in balles with their handes, it is vsed (beside other purposes) for the taking of Birdes. Besides all this, there sweateth out of Trées a certaine Gumme knowen to all men, as of the Cherie trée, the Plome Trée, the Iuniper, the Oliue, the Blackethorne, the Iuie, and Almond. Out of the Iuniper, commeth Vernish: out of the Myrrhe, Storax: out of the white Poplar, Amber. *Plinie* writeth that Amber commeth out of certaine

Birdlime.

Vernish.

Amber.

Pine

Pine Trees in the latte, as Quinne doth from the Cherie tree. And thus theſe thinges I that haue here at your requeſt declared, touching the order of Planting and Sowing, I beſeech you take in good worth: you heare my wife calleth vs to Supper, and you ſee the ſhadowe is ten foote long, therefore it is hie time we go.

THRA. I giue you moſt hartie thankes, that you haue thus friendly entertained me in this your faire Orchard, with the ſweete diſcription of theſe pleaſant Hearbes and Trees.

IVLIA. Sir, your Supper is ready, I pray you make an ende of your talke, and let the Gentleman come in here into this Arber.

MARIVS. Come, let vs go.

Soli Deo laus & gloria, per Chriſtum Ieſum.

The ende of the ſecond Booke.

breeding, and curing of cattell.

Hipconnū, Euphorbus, Hedo, Eumanis.

THat the breeding and feeding of cattell is a part of husbandry, and neere ioined in kinrede to the tilture of the ground, not onely appeareth by *Virgil*, the prince of Poetes, who hath in his Georgickes throughlie set forth the order therof, but also by the witnesse of the more ancient Philosophers *Xenophon*, and *Aristotle*. The like doth our common experience at home daily teach vs: for albeit the trade of tillage and keeping of cattel is diuers, and the manner of occupying many times contrary the one to the other: as where the Grasier and Breeder, requireth a grounde full of greasse and pasture, the husbandman on the other side, a ground without greasse, well tilled: yet in these two diuers vocations, there appeareth such an affinitie, and mutuall coherencie redounding in the occupying of one the other, whiche *Fundanius* in *Varro* doth term by an apte resemblance to proue: as in a couple of shalmes, quoth he, the one differeth in sound from the other, though the stocke and fingering be all one (the one sounding the treble, the other the base) euen so may we terme the grasier's trade the treble, the tillers occupation the base, following *Dicearchus*, who reporteth, that at the beginning, men liued onely by breeding & feeding of cattel, not hauing as yet the skill of plowing & tilling the ground, nor plating of trees. Afterwards in a lower degree, was found out the instrument of tilling of the ground, & therfore he setteth the base to the treble, in that it is lower, as in a couple of recorders the base to the treble. So this ofspring to keep cattel for plowing, cariage, dounging of our grounds & other commodities, & on the other side, to till the ground for feeding and maintenance of our cattell, it comes to passe, that though the manner of occupying in tillage, & keeping of cattell be diuers, yet are they so farre forth the one of the other, that (as it seemeth) they cannot iustlie a funder: for without the

the ſeruice of Horſe and Oxen, we can neither plow nor doung our ground: and chaffe, ſtrawe, and other offall of Corne, is meeter to be ſpent vppon the ground, then to be ſolde, both for the farmers behoofe, and the lords, and better beſtowed vpon the houſholde cattell, then vppon the forreuers. Beſides, the doung of the cattell enricheth the grounde, and bringeth great encreaſe: and whereas there is no place (as *Columella* ſaith) but in the tillage of the ground, they haue as much need of cattell, as men: the cattell ſerue not onely for the tilling of the ground, but alſo to bring in corne, to beare burdens, carrie doung for the grounde, and alſo for victuall, and increaſe of the ſtocke: whereby they haue their name *Iumenta*, of helping, becauſe they helpe and further vs, either in our labours by plowing, or bearing. Neither is it onely ſufficient to nourith, and bring vp this kinde of great cattell called *Iumenta*, but alſo the other leſſer ſorte of Beaſtes, as Sheepe, Swine, Goates: and of fowles, Geeſe, Peacockes, Duckes, Pigions, Hennes, Chickens, and other Poultrie, and things belonging to husbandrie, where with the good husbande, beſide his owne ſuſtenance maketh great gaine: and if the grounds be for it, and Dales favourable, there ariſeth oftentimes as great profite, as in ſowing of corne, and that with ſmaller charges. For a proofe that feeding is gainefull, the woordes *pecunia* money, and *peculium* ſubſtance, as riches, being both deriued from the Latine name of cattels, may very well ſerue: for in the old time they vſed their cattell in ſtrede of money, and their common penalties and fines, taken in cattell, the greateſt, was thirtie Oxen, and two Sheepe, euery Oxe valued at v. s. vj. d. and euery Sheepe at vj. d. the ſmalleſt was a ſheepe: the very like is yet obſerued with the nobleſt and baſeſt people, whoſe ſubſtance lieth altogither in cattell. *Cato* being once aſked by what part of Huſbandrie a man might ſoneſt be made rich, made anſwere, by grazing: and being aſked againe, which way he might gette ſufficient liuelihoode, he anſwered, by meane grazing. Moreouer, that the worthineſſe and firſt originall of keeping of cattell is of greateſt antiquitie, and that theyr race and perfection hath alwaies from the time of the Patriarkes, hitherto been counted moſt

The worthineſſe and antiquitie of keeping of cattell.

most honest, as well the Scriptures, as prophane histories doe witnes, which kinde of life, how acceptable it hath alwaies beene to God, by thole that liued in the first worlde, doth plainly appeare. The scripture sheweth how graciously the Lord accepted the sacrifice of *Abel*, a keeper and feeder of sheepe, besides *Seth*, *Noe*, *Abraham*, *Lot*, *Iacob*, *Iob*, *Amos*. Holy and blessed men are commended for keeping, and feeding of Cattell, whereby attaining to great wealth, they sustained them selues, their Wiues, their Children, and there huge families. The Sonnes of *Iacob*, when as they were demanded by the king of *Ægypt* what maner of life they ledde: made answere, that they were feeders and keepers of Cattell, from which trade *Lot*, *Moyses*, *Saule* and *Dauid*, were by the will of GOD aduanced to the Crowne. as among the Gentiles the most auncient, and famous Princes were, some of them brought vp by Sheaperdes, and some Sheaperdes them selues. *Romulus* and *Cerus* being mighty Emperors, were brought vp among sheaperdes. Writers *Galerius Maximinus*, *Constantine*, *Probus*, and *Aurelianus*, came all from the Dreskale, to the Imperiall Seate. *Homer* commendeth *Vlisses* his Swineheard; for his great valiaunce and noblenes. That the valiant and noblest people haue professed this trade, the Italians, Germanes, and Swetzers can testifie, whose Countries being sold growne to more delicate, then they were wont to be, were wonte alwaies, when their liuings were most famous, to glory and vaunt themselues of this life, as at this daie the goodliest and loyfull dot. And therefore the auncient writers, as well Greekes, as Latines, do count the cheefest wealth to be in the numbers of Sheepe, Cattell and Fruite: for highest estimation the Cattell were supposed to be cladde in Golden Coates: whence sprang first the fable of the Golden Fleece of *Colchos*, which *Iason*, and his companions attempted to fetche, and of the Golden Apples, kept by the daughters of *Atlas*. Whilest the signes of Heauen, the fruitfull Mountaines, and Countries tooke there names of Beastes: among the starres, the Ramme, the Bull: the Mountaine, *Taurus*: and the Sea, *Bosphorus*. *Italy* tooke his name of Calues. Moreouer the keeping of Cattell is the healthier, in that it

Th worthinesse and antiquitie of keeping of cattell.

hath come resemblance of the same: and therfore the Poets in their Dialogs, and Poets in their verses, doe oftentimes call kinges & princes by the names of Shepheardes, and rulers of the people. Yea the Lorde of the whole worlde doth call himselfe a Shepheard. Since it appeareth by these examples, of what worthinesse keeping of cattell is, and howe neere it is linked with tillage, I haue here thought good, after the entreating of Tillage, Gardening, and Orchards, to describe as briefly as I can, the order and manner of keeping of Cattell: which skill though Varro deuideth onely into three partes, I haue deuided into foure. In the first part I put the great cattell for burden, as Horses, Asses, Mules, Camels: in the second part the lesser sort, as Sheepe, Goates, and Swine: in the third, such things as are belonging to the keeping and safegarde of Cattell, not for the profite they yeelde of themselues, but for their necessarie vse, as Shepheards, Dogges, and Cattes: of these three parts in this third booke I entreate of: the fourth I refer to the fourth booke. Hauing thus declared the contention betwixt keeping of Cattell, and tillage, with the worthinesse and antiquitie therof, I meane now to prosecute such things as are belonging to the same. I haue brought in the Walkers and keepers of euery kinde of Cattell, and resting themselues vpon the holiday in the greene grasse, and the Sommers shadow, euery one declaring his skill and knowledge, according to his profession. The parties are *EVPHORBIVS* the Neteherd: *HIPPOCOMVS* the Horsekeeper: *HEDIO* the Shepheard, and *EVMAEVS* the Swineheard.

EVPH. How sirra *HIPPOCOMVS*, whither wander you? Do you not knowe that it is holliday, a day to dance in, and make merry at the Ale house?

HIPPO. Euery day is holy day with lazy and slouthfull marchants: it lieth me vppon to looke to my profit, to see whether my horses fede well, and that they take no harme. The pastures are so burnt with the heate of Sommer, that I am afraid for wante of meate, they will seeke to breake into other grounds, and so hurt themselues.

EVPH. Why bring you not them into this fielde, where

there

there is both a goodly pond, and plenty store of grasse among the
[illegible]

HIPPO. You perswade me not to the worst.

EVPH. Come on then, bid *Martin* your boy bring hither your horses, and your self, sir, your own selfe, this day sell, that will yield us both thankes and quittes, and he will send for *CHRYSOSTOME* and *DIONISIE* if you thinke good: and thereto I pray the time with such talke as you shall finde.

HIPPO. Agreed. Go *Martin*, fetch hither the horses, both the Colts and the fillies.

EVPH. And you *MARGARET* and *DOROTHY*, bring your wheeles together, and come hither, every man shall have Of horses
before his shot, as they lye in the traverse, but without cumbring or any charges, declaring at large what belongeth to the Cattell in both. Your Horses *HIPPOCRAMO* are yet in good plight, I saw the horses of our neighbour *Agrius* of late look chaue lower and beare a great way.

HIPPO. Peradventure they have not so good looking unto, though they neither want pasture, nor are much laboured, but mine on the other side are continually laboured, and are not so high fed, but are better able unto their any neighbors.

EVPH. Well, since both time and place requireth it, I pray you let us heare what you can say, touching the charge and keeping of horses.

HIPPO. Surely I have not greedy money to sell, but I have well beat leysure, and therefore since you are so earnest with me I will not denie your request, although that of this matter an honest and learned Gentleman of England, master Thomas Hyde[illegible] hath at large thought in addition to his commendation and benefit of his country, as there cannot be more said: I refer you therefore wholy to him, notwithstanding hereafter I will shew you my fancie among all other measures that we use in our labour, the Normans won this chalenge the chiefest place, as the noblest, the goodliest, the nearest fit, & the trustiest beast that we use in our service, since he serveth to so many uses, I should here bestow some time in his praise, & in declaring his service, but for this another time will better serve.

EVPHOR. Wil ye onely here declare to me, what the signes of a good, and an excellent Horse, and the right manner of ordring him.

HIPPO. First, you shall knowe that Horses serue for sundrye purposes. Some, for the Plough, the Carte, and the Packesaddle, others, for light Horses, Coursers, and Horses of seruice, others againe, for Stallions, and breeders: and therefore they must be holden according to their seruice. Souldiers, Gentlemen of warre, desire a fierce Horse, courageous, swift and well coloured. The Husbandman woulde haue his Horse gentle, large bodied, and meete for trauell and burden. Notwithstanding, the breeding and bringing vppe of them, is almoste one: for in their breeding, we hope to bring them all to the Saddle.

EVPHOR. What thinges are moste to be considered in their breeding?

HIPPO. He that hath a minde to breed Horse, must first prouide himselfe of a good Race, and then of good grounde, and plentie of pasture, which in other Cattell ought not to be so greatly obserued, but in Horses there must be speciall care thereof. And therefore, you must first see that your Stallion be of a good race, well proportioned, and framed in euerie point, and in the like sort, the Mare. Some reckon their goodnes by their Countreies, wherein they take for chiefe, the Genet of Spaine, the Courser of Naples, the Barmacian Horse, the *Peloponesian*, the *Turkie*, and the *Thessalian*: but these serue chiefely for running, and swiftnesse. For largenesse of body, endouring of labor, and stoutnesse for warre, the best are to be had out of *Friesland*, *Holland*, and *Artois*. The shape and proportion of the Horse, ought chiefly to be considered, for the verie looke and countenance oftentimes declareth the goodnesse of his nature. Therefore you must diligently consider his nakednesse, from the heele to the head, and first you must chiefely regarde his feete: for as in viewing of a house, it is in vaine to regarde the beautie of the vpper Rooms, if the foundation be ruinous: so the Horse that is not sounde of his feete, will neither serue the Souldiour, the Husbande, nor the Trauailer.

In your loking vppon him therfore you muſt firſt conſider his hoofes that they be not tender and ſoft, but harde and ſounde, rounde and hallowe, that the hollowneſſe may keepe his foote from the grounde, and ſounding like a Cimball as (*Xenophon* ſaith) may declare the ſoundneſſe of the foote, for the hoofe that is ful and fleſhy, is not to be liked, and the horſes that haue ſuch hoofes doe eaſily halt, wherefore diuers commend a horſe like the hoofe of an Aſſe, the paſterns next to the hoofe not to longe as the goat hath, for ſhaking off his rider, and breeding of windgall, nor to ſhort, for being hurt in ſtony grounde. The legges and the thies, ſith they are the ſtandardes of the body, they ought to be euen, ſtraight, & ſound, not gouty, with much fleſhe and baines, for ſuch as haue their legges clad with much fleſhe and baines, they with great iourneies growe full of windgals and ſwellinges which will cauſe them to halt, which legges at the firſt foling, are as long as euer they wilbe, by reaſon wherof you may geſſe what heigth the horſe wil be of, being yet a Coult. The knees muſt be round, flexible, and ſmall, and not bowing inward nor ſtiffe, the thies large and well braſoned, his breaſt great and broade, his necke ſoft and broad, not hanging like a Goates, but vpright like a Cockes, and well reining, his mane thicke, falling on the right ſide, ſome like it better on the left, his head ſmale and leane, for a great and heauy head, is a ſigne of a dull Jade, his mouſſell ſhort, his mouth wide with large wrinkles, ſtill playing with the Bitte and foming: as *Virg.* There ſtamping ſtandes the ſteed, and foamy bridell fierce he champes. The horſe that hath a drie mouth is nought, his chekebones would be euen and ſmall, for if they ſtand to farre aſunder, he will be ill to be bridled, and the vneuennes of the Chekes, will make him headſtrong, and neuer to reyne well, but to thruſt out his head vnſauorely, his eies great bluddy, and fiery and ſtanding out of his head, which is a ſigne of quickneſs and liuelines: hollow and little eyes are naught, and blacke, or pale ſtarres in the eies are to be diſpraiſed: theſe faultes are beſt ſpied in the night by candell light. *Columella* commendeth blacke eies. A wall eie is verie good, ſuch as they ſaye *Alexander Bucephalus* had. The eares muſt be ſhorte, ſtanding

The hoofes.

The legs.

The knes
The thies
The breſt
The neck
The mane.

The hed.

The mouth.

The eies

The eares.

vpright, and ſtirring, for the eares, be the tokens of a Horſe
The noſtrell. his ſtomacke, which if they bee great and hanging, are ſignes
of a Jade. The noſtrelles muſt be wide, the better to receaue
The ſholder. aire, which alſo declareth a liuely courage, his ſhoulders large
and ſtraight, the ſides turning inwarde, the ridgebone ouer the
The chyne. ſhoulders being ſomething hie, giues the horſeman a better
ſeate, and the ſhoulders, and the reſt of the bodie, is ſtronger
knitte together, if it be double, his ſides deepe, well knitte be-
The ſides. hinde, and ſomething bowed vppe, which both is better for the
The loynes. horſeman, and a ſigne of a great ſtrength: his loynes, the
broder they bee, the better he lifteth his forefeete, and follow-
The belly. eth with the hinder, and his paunch ſhal the leſſe appeer, which
The buttocks. both diſgraceth him & burdeneth him, his belly muſt be gaunt,
his buttockes large, and full of fleſh, anſwerable to his thighes,
and his ſides, for if he be broad hanched, and well ſpred behind,
and goeth wide, his pace will be the ſurer, which we may per-
ceaue in our ſelues, if wee aſſaie to take vp a thing from the
ground, ſtryding, and not with our legges together, we take
The taile. it vp with more eaſe and ſtrength. Hys tayle muſt be long,
buſhy, and curled, the length whereof, is not only a beautie, but
alſo a great commoditie to him to beate away flies: yet ſome
delight to haue them curtailed, ſpecially if they be broade but-
tockt. In fine, the whol body muſt be ſo framed, as it be large,
hie, liuely ſpyted, and well truſſed. Some horſmen would haue
their horſe to be limmed after the proportion of diuers beaſts,
as to haue the head and legges of a ſtagge, the eares and tayle
of a fore, the necke, of a ſwanne, the breſt of a lion, the but-
tockes, of a Woman, and the feete of an Aſſe. *Virgill* in his *Ge-
orgickes* doth verie clarkely deſcribe the tokens of a good
Horſe.

With head aduaunced hie at firſt, the kingly Calt doth pace.
His tender limmes aloft he lifts, as well be ſeemes his race.
And foremoſt ſtill he goeth, & through the ſtreame he makes his way.
And ventures firſt the bridge, no ſudain ſound doth him affray.
Hy creſted is his necke, and eke his head is framed ſmall.
His belly gant, his backe is brode, and breſted big withall.

The

The bay is alwaies counted good, so likewise is the gray:
The white, and yellow worst of all, besides, if farr away
There happen a noise, he stampes and quiet cannot rest,
But prauncethhere and there, as if some spirite were in his brest.
His eares he settes vpright, and from his nose the fiery flame
Doth seeme to come, while as he snuffes, and snorthes at the same.
Thicke is his maine, and on the right side downe doth hanging fall.
And double chinde vpon his loines, a gutter runes withall,
He scraping standes and making deepe a hole, he pawes the ground.
Whiles as aloud his horned house, all hollowed seemes to sound.

You se in howe fewe verses the poet hath expressed the properties of a good horse: other conditions there bee for which they bee liked, when they be pleasant, first lively, gentle, and tractable: For such as *Columella* saith, will both better bee taught, and better away with trauell. *Xenophon* accounteth it a signe of a good horse, if after the wearines of his iourney hee seeme to labour lustely: againe, we finde by experience, the better the horse is, the deeper he thrusts his head into the water when he drinketh, and that (being a Colte) striueth to outrun his fellowes in the pasture, and as *Virgill* saith, leape first into the water, and passeth bridges, not farrying for an other, nor fearing the ise.

EVPHOR. What colour in Horses counte you the best. The Poet seemeth to mislike the white, which others againe, as I haue sundry times heard, commend, specially in Englande, where they are well accounted of, and most esteemed.

HIP. Touching the colours, there are diuers opinions, and of all colours, lightly you shall finde both good and badde: so that the colour is not so greatly to bee regarded, if he haue other tokens of a good horse, yet for beautie, and many times for goodnes, we make choise of colour. The best colours as diuers suppose are these, the rone, the white liarde, the bay, the sorrell, the dunne, the daple gray, the ashy white, the flohitten, the milke white, the blacke, and the Iron graie, the bay is most of price as farre as I see at this daye, and preferred

ferred by the Poet aboue the reſt. The Frenchmen call the bay horſe *Le Bayard loyal*, trustie Bayard: they are the better that haue a ſtarre in the forehead, and the foote ſpotted a litle with white, aforetime the dapple gray, the fleabitten, the mouſedun, and the griſell were moſt eſteemed, and ſuch as came neareſt to them, as the iron gray, the bright ſorell, the browne baye. Onely *Plato* commendeth the milke white, that *Virgil* diſprai-ſeth. Others commende the blacke, ſpecially if he haue either white ſtar in his forehead, or ſtrake downe his face, or hath any white vpon his foote, the cole blacke without any white, is al-togither miſliked, the fleabitten horſe prooueth alwaies good and notable in trauell: the yelowiſh and the ſtrued or pied hor-ſes are diſcommended almoſt of all men, notwithſtanding ei-ther of them (if they be well marked) prooue oftentimes well enough, ſpecially the yellowiſh, if he haue a blacke liſt downe his back frō the neck to the taile. The Stallion therfore would bee of one colour, ſtrong bodied, well limmed, according to the proportion afore. The Mares woulde likewiſe haue the ſame proportion of the ſtallion, ſpecially to haue large bodies, faire and beautiful, of one colour, great bellied, with large & ſquare breſt and buttockes.

The Stallion.

The Mares.

EVP. What age count you beſt for breede?

Age.

HIP. The Stallion may goe with the Mares when his iointes and limmes bee well knitte and come to their growth, for if they be too yong, they get but weake and wearifh coltes: ſome vſe to let them go together at tiwo yeares olde, but three yeares olde is the better: the ſtallion will ſerue you from that time till twentie yeare, it hath beene ſeene that they haue gotten coltes till fortie, being helped a little in their buſineſſe, for it is not yeares but kill that abateth luſt, as *Ariſtotle* afore *Plinie* wrote. Yet ſome thinke them not meete for breede before the fourth or fifth yeare, in which ſpace they feede them luſtely, to make them more corragious, for the luſtier they be the better coultes they bring, neither woulde they haue vnder ſixteene Mares, nor aboue twentie, for one ſtallion. *Herodotus* writeth that one horſe will well ſuffice twentie Mares, but the number ought not alwaies to be obſerued, but ſometimes more, ſome-

time

times leſſe, according to the diet of the horſe, that he may the longer endure: a young horſe ſhould not haue aboue fiftene or ſixtene Mares with him: the horſes muſt be ſometime ſeuered, for danger and hurting of them ſelues, hauing in the meane time good regarde to the ſtate of his body, for ſome be weaker and fainter then others.

EVP H. What age doe you thinke beſt for the Mare to go to the horſe?

HIPPO. The Mares will conceiue at two yeres olde, but I take it the better not to ſuffer them till they be three yere olde, as likewiſe I thinke them not meete for Coultes after ten, for an olde Mare will alwaies bring a dull and heauie headed Jade: the goe with Foale aleuen monthes, and foale in the twelfth.

EVP. Howe can you knowe their age when you be doubtfull of it?

HVP. That may you knowe diuers waies, but ſpecially by the teeth, and thoſe teeth that declare the age, the Grecians call τὰ κύφωνα, which teeth when he loſeth, he loſeth both eſtimation and ſale. *Ariſtotel* affirmeth that a horſe hath 40. teeth, of which he caſteth the thirtieth month after his foaling foure, two aboue, and two beneath, againe in the beginning of his fourth yere he caſteth likewiſe foure, two aboue and two beneath, being full foure, and going vppon his fift, he caſteth the reſt both aboue and beneath: ſuch teeth as come vp againe be hollow: when he beginneth to be fiue yeere olde, the hollownes of his firſt teeth is filde vp: in the ſeuenth yere all his teeth are filled vp, and no hollownes any longer to be ſeene: after which time, no iudgement of his age by his teeth is any more to be had: ther are ſome that take vpon them to tell his age by the Joyntes of his taile, after the marke is out of his mouth. *Palladius* ſhewes, that a horſe when he beginnes to be olde, his temples ware hollowe, his eye bries gray, and his teeth long. *Ariſtotle* ſaith, that the age of all fourfoted beaſtes may be knowene by the ſkinne of their Jawes: for if it be pulde vp and preſently let fall againe, if it fall ſmothe, it declares a young beaſt, if it lie in wrinkles, it ſheweth he is olde. A horſe liueth

commonly liueth xxx. yeres, fourtie, or fortie, and also to fif-
tie, as Aristotle saith, yet beyng a good disposition and well or-
dered, it is said there haue been horses that haue liued 75. yeres,
the Mare liueth not so long as the horse, nor the Stallion so
long as the horse that is suffered to run amongst Mares: the
Mare leaueth growing at fiue yeere olde, and the horse at fiue
or seauen.

EVPH. What tyme thinke you best for coueryng of
Mares.

HIP. In the Spryng, after the twelfth of March, I
take to be the best, after the Spring in the rest of the yeere
they are to be kept from the horse, for hurting of the Horse:
for the Mare after shee hath conceiued, suffers the Horse no
more, but beates, and strikes him with her heeles, yet in most
places, they suffer their stallions to run with their Mares
all the Sommer long, and take it to be the best way, for answe-
ring the Mares desire, for many times the Mare wil not abide
the horse till Sommer time, or August, and the August Coult
proues cõmonly very faire, although the coults that are foa-
led in the Spring, are not to be desired, because they runne all
the yeere with their dammes in good pasture, and therefore it is
best at that time to put the Mare to the Horse, for these crea-
tures specially, if you restrain thẽ, are most enraged with lust,
whereas came at the first the name of that deadly poison *Hip-
pomanes*, because it stirreth vppe a fleshly affection, according to
the burning desire of beastes, which groweth in the forehead of
the coult, of the quantitie of a Figge, and blacke, which the
damme doth straight, as sone as she hath foled, bite off: and
if she be preuented, she neither loues the Colte, nor suffers
him to sucke, neither is to be doubted, but that the Mares
in some Countries so burne with lust, as though they haue
not the horse, with their owne feruent desyre they conceaue
and bring forth after the maner of Wyrdes, as the Poet no-
teth.

In furious lust the Mare surpasses all other beastes that be,
At both bene said, that in Spaine Mares haue conceaued with
the winde, and brought in their Colts, but the Colts haue not
liued.

lined about these parts. EVPHOR. Methinks that a Mares desire is quenched by hearing of her Foale.

EVPHOR. What if the Mare will not take the Horse, is there no meanes to make her?

HIPPO. There are that rubbe her tailes with Sea Onions, Nettles or Madder, and so prouoke her to lust, some time a burning Fire is put to her: and when he hath gotten her good will, is straite remoued, and a better Horse put in place. If the Horse be to flouthfull, his courage is stirred vp by wyping her Mayle with a Sponge, and rubbing it about his Nose. If we would haue a Horse Coult, we knitte the lefte Stone of the Horse with a Corde, and for a Mare the right. The like is to be obserued almost in all other beastes.

EVPHOR. Howe often must she be Horsed after she take.

HIP. They take not alike, some are spedde at once, some twise, some more. It is saide, a Mare will not suffer about fiftene times in the yeare: being oftentimes satisfied with fewer. They must be put to the horse at times twyse a day, in the morning and at night, when they are hed, it appeareth by refusing and striking at the horse. They say, there is amongest these beastes a great regard of kindred, and that you can hardly force the Coult to horse the Damme: for proofe whereof they reporte, that whereas a certayne Horsekeeper did make his Horse, by couering his eies, to coure his Damme, the cloth being pulde away, when he sawe what he had done, he ranne vpon his keeper, and slewe him: as soone as shee is couered, the Mare must out of hande be beaten, and forced to runne, least shee lose that she hath receiued. Moreouer Mares of all other beastes, after her couering, do by rouling themselues about, or Northwarde by according as she hath conceiued either Horse Coult or Mare Coult: her colour also doth change and become brighter, which when they perceaue, they gather for the Horse the more. Some after a fewe dayes if they doubt her, offer the horse again, and if she refuse (the reason I haue before) they iudge she hath conceiued.

EVPH.

EVPHOR. Must they be couered euery yeere.

HIPPO. Such is our couetousnesse, as we seeke to haue them beares euery yeere: but if you will haue good Coultes, let your Mares go to horse but euery other yeere, so shall they well answere your desire, howbeit the common vse is euery yeere.

EVPHOR. We let Asses sometimes to couer Mares commonly, and thereof is engendred the Moile, foaled in the xij. moneth, as shall be said hereafter. Some say it is best to cut the mane of the mare that shalbe couered of the Asse, though others hold opinion that it shal abate her lust. The mares that be with foale, must be well loked vnto, and put in good pasture. And if thorowe the colde Winter, pasture be wanting, they must be kept in the house, and neither labored nor iadled vp and downe, nor suffered to take colde, nor to be kept too many in a straight rome, for casting their foales, for all these inconueniences wil hazard her foales, yet to trauell them moderately, will doe them rather good then harme, for too long rest will cause them to be restife, and to tyer sooner. *Aristotle* writeth, that the *Scythians* did vse to trauell their Mares great with foale after the time they began to stirre, supposing their foaling should be the easier, but good heede must be taken, that their bellies bee not hurt with any thing while they are with foale, but if so bee the Mare be in danger either in casting her foale, or in foaling, the remedy is, *Pulipody* stamped, mingled with warme water, and giuen with a horne: it is saide that the smell of a Candell snuffe causeth them to cast their foales: you must euery yeere ouersee your Mares, and such as bee vnprofitable or barraine, must bee put away, for from their first foaling, they are not to be kept aboue terme yeeres, at which time they are lustye enough, and maybe well solde, but so wil they not be after: The young foales are not to bee handled with the hande, for they are hurt with the lightest touch that may bee. It must bee some stable, that if the Mare be housed, there be rome enough for her & her foale, and that the place be warme enough, that neyther the colde hurt it, nor the Maystre ouer lie it, and therefore the place must be well chosen, that is, neither too hotte, nor

to cold, and after warde ſhe little, you muſt bring vp the Colte: when it groweth to be ſomething ſtrong, it muſt be put to paſture with the Mare, leaſt the Mare receiue hurt, by the abſence of it: for chiefely this Beaſt of all others, moſt eſteemeth her yong, and if ſhe be kept from it, taketh harme. The Fole that lackes his damme, is often brought vppe, of other Mares, that haue Coltes: the Mare muſt go in very good paſture, that the Colte may haue ſtore of milke. Being fiue moneths olde, when you bring them into houſe, you muſt fede them with barly flowre and wanne, at a twelue moneth olde, you muſt either put them into good paſture, or fede them with Wanne, Chaffe, and Hay. *Varro* will not haue you to weane them, till they bee two yeares old: and though I like not to ſone weaning, yet we vſe commonly to weane them at fiue or ſixe monethes old, and to let them runne in good paſture, which cuſtome prouyeth not amiſſe. Moreouer as long as they runne with the Damme, you ſhall do well to handle them now and then, leaſt, when they be put from the Damme, they waxe wilde: they muſt bee taught to be gentle, and not onely to abide a man, but to couet his companie, and not to be afraied at euery ſtrange ſight, nor at euery noiſe, but to come to it. *Xenophon* ſaith, we muſt, (as men) prouide ſchoolemaſters for our Children, ſo likewiſe teachers for our Horſes, and appoint how we will haue them broken: for as their ſeruice is diuers, ſo muſt be their breaking. But hereof we ſhal ſpeake more hereafter, when we entreat of horſemanſhip, and breaking of horſes: onely now we wil deal with thoſe that ſucke, and ſerue for the Plow. To make them gentler, the bridles and other horſe harneies muſt be hanged by them, that they may the better be acquainted with them, both with the ſight, and the gingling. Now when they be well tamed, and will ſuffer to be handled, *Varro* would haue you lay a boy groueling vpon them twiſe or thriſe, and after to beſtride them, and this he would haue done, when they be three yeare olde, for then they grow moſt, and begin to be great brawned. There be that thinke a Horſe may begin to be handled at a yeare and a halfe olde, and *Varro*, at three yeare old, when their prouender is giuen them: but we vſe commonly after two yeares to labor them gently

gently, first in harrowing of new ploughed land, which is good both for their sote, and their place, and also with plowing, and such like exercise: whereby we vse to acquaint them with colde and heate, in drawing together. It must be seen to, that they be euen matched, least the stronger spoile the weaker, while hee dreadeth the rating and whipping. Horses take lesse harme with drawing then with bearing. Whensoeuer they be vsed to reasonable trauell, by reason whereof, they will be the harder, and not so lightly take harme: but herein must be great discretion.

EVPH. What saye you to Geldinges? for in these parties we vse Geldings most.

HIPPO. They serue for some purpose, but he that will haue a good Gelding, must geld (as they say) a good Horse, they are cut at a yeere old and elder: I my selfe haue cut them at fiue yeere old, & fiue yeere old: in cutting they lose their stomack, you must looke that they be in good plight when you cut them, for as they are at their cutting, they commonly continue. The Mares also vse to be spayed, but not often, and with great danger.

EVPH. What maner of stable would you haue, for I haue sometimes heard, that the stable is of great importance.

Stables. *HIPPO.* Your stable must be build in a drie place, for wetting the horses hoofe, which you shall auoide, if you plaster it with good Oken planks, or (which *Xenophon* would rather haue you do) with round pauing stone, keeping it alwaies clean from doung, and straw, and after laying fresh litter, so as they stand hard, and lie soft. *Xenophon* would haue the stable so placed, as it may alwaies be in the Master eie; and to be lightsome, least the horse being vsed to the darke, his eie dasell at the light. Some think they wil be the gentler, if they be vsed to the light, and the faster, if they haue the sunne at his rising in Summer time: let as much aire come to them both day and night as you can. In Winter your stable should rather be warme, then hot, and therfore your stable must stand toward the South, but so as the windowes may open towarde the North, which being kept shut in Winter, may be warme, and opened in Summer, you may let in the colde aire.

EVPH. The like we vse in our Ore stalls.

HIPPO.

HIPPO. Beſides, whereas the bodies of cattell, haue need of rubbing, as well as mans bodies, for many times it doth the horſe as much good to be ſtroked downe the backe with your hand, as to feede him. The horſe is to be continually curried in the morning, at night, and after his labour. In curryng of them we muſt begin at the head, and the neeke: for it is a baſe thing to ſtroke rudely the lower parts, and leaue the other vnſtroked. It is good alſo to obſerue due times for his feeding, his watering, and his trauaile. Thus much of his exercise. Now followeth to ſpeake of his diet: and becauſe we haue ſpoken before of his paſture, we muſt alſo ſay ſomewhat of his other feeding. The better a man would haue his horſe to proue, the better muſt he be fed for his meate, for the good feeding (the country people ſay) is a greate helpe to the goodneſſe of the horſe. If the beaſt be young (as I ſaid before of Coltes) he muſt be fed with graſſe, chaffe, and hay: if he be elder and meet to trauaile, his foode muſt be thicker, as Chaffe, Barley, Oates, and Hay. Chaffe doth not ſo well nourish, by reaſon of the thinneſſe, but it keepes the body in good plight: and becauſe hard meat is hardeſt of digeſtion, it is therefore to be giuen to thoſe that labour. The ſtocke of ſtoode muſt be paſtured in large paſtures and marſhes, as alſo in ſmall mountaines and hilly grounde, but euer well watred, not dry; rather champion then woody, and rather ſoft ſweete graſſe, then rude and ſtaggy: if the paſture be to ſhort, they ſhoote out their foretethe, & are toothleſſe before their full age. And where as euery kind of Creature is naturally moiſt, a horſe ought chiefely (whether he be young, or olde) to be fed with moiſt paſture, for the better conſeruation of his naturall temperature. Some would haue you in no wiſe to giue your horſe graſſe in the ſpring time, but in June, or the fall of the leafe: they would haue you giue them graſſe with the dew vpon it, & in the night ſeaſon Oates, Barly, and Hay. Notable it is, in the colder countries in Germany, France, England, where the paſture is very good; they doubt not to houſe their horſes with greene graſſe and prouender of the meſſe or more, & in the hotter countries, they do the like but by much lattes of the heat, or later. Some vſe to giue them apples ſhred in peeces, to ſtoure the belly: & thus much of

Currying.

Dyet.

Skowring.

ſkouring of Horſes. Generally whoſoeuer will haue his Horſe healthy, and able to endure trauell, let him feed his Horſe with Dates, mingled with chaffe or ſtraw, ſo ſhal he be temperately and well fed, and if ſo he labor much, giue him the more Dates. His meate muſt be giuen him as ſome thinke beſt, in a lowe Manger, ſet ſo lowe, as they are forced to eate their meat with ſome difficultie or trauell, which they ſaye is to make them bend their neckes: by which exercise both the head, and the neck groweth bigger, and they will be the eaſier to be bridled: beſides, they will be the ſtronger, by reaſon of the hard ſetting of the forefate. Howbeit, in ſome places, they vſe hie ſtanding Mangers: after what ſort ſoeuer they be, they muſt alwaies be kept cleane, and well ſwept before you caſt in their meat. Their Prouender though diuers Horſecourſers, that liue by ſale of horſe, do feed them with ſodden Rie, or beanmeale ſod, pampering them vp, that they may be the fairer to the eie: yet is it not good fode to labor with. The beſt Prouender that is, is Dates, and for default of them Barly: you muſt beware you giue them neither Wheate, Rie, or any dry pulſe: their prouender muſt be giuen them rather often, and littel, then once or twiſe a day in great portions, leaſt you glutte them therewith: they are vſed to be fed commonly fiue times a day, when they ſtande in the ſtable, keeping an equall number of houres betweene the times: when they trauell you may giue them meate ſeldomer, but in greater quantity, and if their iournies be long, they muſt haue prouender beſides in the night, alwaies remembring (as I ſaide) that you glutte them not. The better a horſe feedeth, the better will he labour. You muſt alſo beware that you giue him no prouender, neither Dates nor Barly, after any great labour, till he be throwlye colde: notwithſtanding you may giue him a little hay to cole his mouth. The hay muſt be ſweete and well made, and thoroughly ſhaken, before it be caſt into the racke: and ſpecially ſeene no, that there be no feathers of any ſorte amongeſt it. If the Horſe be very hotte after his labour, let him be well couered, and ſoftly walked till he be colde, before you ſet him vp: when he is ſet vp, litter him well, leaſt the coldneſſe of the ground ſtrike into him: in any wiſe walk him not when he

Prouender.

is hot, but when he is through ridde, water him, and walk him, wiping him dri when you bring him in. If the horſe do forſake his meate, some vſe to ſtampe Garlike and Pepper, and to giue it him, rubbing his teeth well, till his ſtomacke come to him: some would haue a clout wette in ſalt water and put vpon a ſticke, and thruſt into his Iawes. In watring, you muſt looke well vnto him, for (as *Ariſtotle* ſaith) beaſtes in ſide, and are nourished the better, if they be well watred. Horſes and Camels, do loue beſt to drinke a thicke troubled water, in ſo much as if the water be cleare, they will trouble it with their fet: for the moſt Baſiſkes againe deſire a faire cleare water, & running. The ſame *Ariſtotle* alſo affirmeth, that a horſe may ſuffer thirſt. 4. daies without drinke. *Varro* willes you to water your horſes twiſe a day, which order we obſerue, that is once in the morning, and againe in the afternoone: but in winter, if they drinke but once a day, it ſufficeth: before you water him, he muſt be well rubbed, and then ledde into the water vp to the knees, ſpecially if he be leane, if he be fatte, he may goe the deeper. Notwithſtanding there are ſome that hold opinion, they ought not to goe ſo deepe, as their ſtones touche the water, ſpecially if the horſe be young. After March, and the ſpring, it is very good to ride them vp and downe in ſome River, which will exercise their legges, for the water dryeth the legges, and reſtraineth the humours from falling downe, and keepeth them from windgalles: as ſoone as they come from the water, you muſt rub his little ſtraw wiſpe them cleane, for the dampe of the ſtalle cauſeth inflamation in the horſes legges that be wette. The water (according to *Vegetius* his minde) muſt be cleare, and ſpringing, rather like vnto a little runnitig and troubled in a clay ground: for this water by reaſon of the thicknes and fatneſs, doth better nourihe and feede the horſe, then the ſwift running ſtreames, eſpecially horſes that are bred in the moiſt and cleane paſtures, and through the ſtrong graſſe and beſt trauelled way. Another rule is to make the water deepe before the horſe hath bene accuſtomed. The colour of waters are, the leſſe they nourish, the deeper a horſe drinketh the fatter he groweth: and therefore ſome Huſbandmen vſe to caſt in their horſes meate, for to fatte them, and make them ſtrong.

sale, to giue theyrum appetite to theyr meate and their drinke.

EMPYRICK. I praye you let vs heare some remedies for horses diseases, for (as you haue saide) a horse hath as manye diseases as a man.

MAS. For touching diseases in a horse, it is better to preuent them by good husbandly taking, and (as *Vegetius* saith) to be more carefull in keeping a horse healthy, then when he is sicke to cure him: which healthy you shall continue with ease, if you will obserue those thinges touching his diet, his stable, and his labour, that I haue told you of before. Whosoeuer will haue a good horse, and keepe him in good estate, must oftentimes see him, come to him, handle him, and stroke him: for that both makes him gentell, and giues him a faire coate: and be still mindfull of the olde prouerbe, the Maisters eye maketh a fat horse, and to bee short, to haue him so still in his sight, as hee rather want his owne meat, than his horse should: for hee that neglecteth his horse, neglecteth himselfe. To let him haue moderate exercise, and to ride him easye and then (if the weather bee faire) into the fielde, will do him great good: the morning is better to labour him in then the euening, neither must you in Winter, or in Summer ouerlabour him, for being in a sweate, and after taking colde, he falleth into dangerous diseases. And therefore remember what I saide, that whersoeuer you haue laboured him, or ridden him, be sure pou couer him with some cloth, and walke him softly, that he may be cold before he either be suffered to eate hay or drinke: & when he is colde, he may be led to the water, and washed: so as when you bring him into the stable, you litter him well, and then dry rub him, and so giue him meate. If he be ouer trauailed, that easily is vsed by his neck, and after his sweating, before he his vrinde in Summer with water and Vinegar, in Winter with Beanes: for the neglecting of these thinges, hath beene the cause of many a good horse. Also, to poure in to his nostrils (two eyles in Summer colde, in Winter warme (as *Vegetius* teacheth) and as I haue by experience: in like wise good for sicke commonly sicke, that a tired horse (if necessitie forces him after trauaile) with poysoning in a quart of good wine, will trauaile lustily. But you must not suffer

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your horſe to drinke after his iourney, till he be colde: howbeit, if he ſweate not to extremely, and be ridden ſoone after, it is not ſo daungerous: it is farre better to let him thyrſt, then to geue him colde water if he be hotte. If a horſe haue long reſted, he is not to be trauailed vpon the ſuddein, either in gallopping, or long iourney, but to be laboured faire and ſoftly at the firſt. A horſe that is weary, or tyred, muſte wonderfully refreaſhed, ſo as it would ſeeme he had neuer beene trauailed, if he may wallow him ſelfe either in the ſtable, or other drye place out of the winde and raine; and therefore *Xenophon* would haue neare vnto euery ſtable, a place meete for their wallowing, wherein after their iournies, they may tumble themſelues: for in ſo doing, they ſhewe they are in health, and refreſhe themſelues. You muſt looke diligently that they be well looked to at night, and that after their ſweat, they be well rubbed and curried, and that they be not diſquieted when they ſhould reſt. In winter, they would be clothed with woollen for taking of cold, & in Sommer with Canuas, to keepe them from flies. You muſt beware, that you iourney them not long without ſtaling, but after, you haue trauelled an houre, or ſuch a thing, prouoke the to ſtale (by riding them out of the way) into ſome place where ſheepe haue vſed, or into ſome hie graſſe, ferne, or ſtubble, which order was continually obſerued by the beſt dyeter of horſes, that euer I knewe in England, one Henry King, who hauing charge of that moſt worthy gentlemans horſes, Sir Thomas Chaloner, caried a fayre companie of Geldinges from London, to the Court of Spaine, who notwithſtanding their long iourney through Fraunce, and the painefull paſſage of the *Pirenies*, by the ſkilfull diligence of their keeper, came thither in as good plight as they came out of England. And if ſo be you ſee he cannot ſtale, or ſtaleth with paine, you muſt bathe him with bath appointed for colde, that is, oile mingled with Wine powred vpon his loines: alſo a louſe put into his yard, or Sope put into his fundament, hath beene ſeene to helpe him. If this doe not helpe, you muſt ſquirt in honie boiled thinne with ſalt into his yarde. Some would haue the licour of the lime *Braſſes* ſquirted in: *Elianus* writeth, that the horſe that

cannot scale, is partlye remedied, if she be amazde strike him vppon the face with her girdell; the sete (which is the chiefest matter in a horse) you shall alwaies keepe sound: if as I tolde you afore, your stable be well paued with rounde stone, or wel planchered and kept clean: which done you must stop his hoofes with colue doung, or for want therof with horse doung watred, and the legges must be often rubbed with a strawen wispe. To cause the hoofe to growe, or to repaire the broken hoofe, take of Garlicke heades, seuen ounces, of hearbegrace three handfuls, of Allome beaten and sifted, seauen ounces, of Barrowes grease very olde two pounces; mingle all these with a handfull of Asses doung, boile them, and annoint the hoofes therwith. After their iourney, if you search their sete well, suffering no grauel, nor filth to remaine therein, you shal well refresh their hoofes with the ointment aforesaide. The iointes, or the pasterns, would be well bathed after their trauell with warme wine, or an egge or two would be thrust into their hoofes, the legges themselues would be bathed, with warme beere, or some like bath. If the horse thrust out one of his feete, and stand not euen, it is a signe of some faulte in the foote: the horse halteth, either by reason of the hoyding of his hoofe in iourney, or by ill shoeing, or by vnholsome humours fallen downe, by long standing in the stable, or by windgals. If the fault be in the shoeing, strike vpon the head of euery naile with the hammer, and when you perceiue him to shrinke, plucke out that naile, or powre vppon the hoofe colde water, and that naile that is sicke dry, plucke out: if it matter, squeese it out, and powre in Witch well sodden with olde Swines grease: you must also speedely open his hoofe beldue, that the matter (if it be full of corruption) may descende, least it breake out aboue the hoofe, and so cause a longer time of healing. The signes of it be, if he holde vp his foot, which if you do pare him to the quicke, and where you perceiue it to looke blacke, open it, and let out the matter: if he be hurt inward, and lamenesse but on his toe, it sheweth the fault to be in his hoofe: but if he treade equally with his foote, it declares the griefe to be some other where, then in his hoofe: if in his halting he bowe not his iointes, it is a signe the sore

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is in the ioyntes. For all halting generally, mingle Hemp with the white of an egge, and stop the sore withall, and after clap on the shoe: if it be a wound, put herein the pouder of Oister shelles, and Verdegrease to dry it vp, or the white of an egge, with Soote and Vineger. The Cratches (as they commonly call them) is a malady that happeneth betwixt the Pasternes and the Hoofe, in the manner of a skabbe, and is ingendred of the dampes of the stable, while he standeth wette legged: the remedy whereof, is all one with the paines, which is likewise a sorraunce breeding about the ioyntes, breaking the skinne, and mattring: taking away the heare, washe the sore with warme Beere, or with the broth wherein is sodden mallowes, Brimstone, and sheepes suet, which must be bounde about the sore place morning and euening, or else sheepes suet, Goates suet, Swines grease, Verdegrease, and quicke Brimstone, Bolearmeniacke, and Sope, boyled and made in oyntment, wherwith you shal anoynt ỹ sore twise a day, washing it first with warme Wine, and after it is dried annoint it, in the meane time keepe him out of the water: the lees of wine is also sometime vsed in the curing of the cratches. windgals, which are swellings, and risings in the Legges, are cured with cutting, and burning: some thinke they may be restrained and cured, by riding the Horse oftentimes vppe and downe in some colde and swifte streame, also by washing his legges wyth Salte, Vyneger, Swines grease, and Oyle, wrapping them vp certaine daies, or by launcing, or scarrifiyng they are cured: the outward sores are healed by burning. If the backe be wrong with the saddell, or otherwise hurt that it swel, *Vegetius* would haue you to seeth Onions in water, and when they be so hot as the Horse may suffer, to lay them vppon the sore, and bind them fast, which will allwage the swelling in one night. Item Salt beaten and medled with Vineger, putting to it the yoke of an egge, layed vppon the swelling, will heale it: besides, Arsmart stamped and laide to, doth presently allwage the swelling. If the backe bee galled, washe it with Beere and Butter, or cast vppon it the pouder of a Lome wall. There is a disease that is common in Horses, called the Vines, which if he haue, turne down his

eare, and launce the lore at the roote of the eare, & take out the matter: but take good heede you cut not the vaine that lieth a little aboue. If a horse haue beene let vp hot after his iourney, and in his heate hath beene watred, or taken cold, which the Germanes call *Verfangen*, in English foundred, or in some places traide: the remedie is the skinne of a Weesell cut in small peeces, fresh butter, a rotten egge and vineger mingled together, and powred into the horse with a horne: after which, let him stand couered with a wet cloth, till he ware hot. A present, and assured cure for this disease, I learned not long agone, of that honest, wyse, and valiaunt Gentleman, captaine Nicolas Walbee, in whom there wanteth nothing belonging to a worthy soldier. His medicine was this: Garter each leg immediately one handful aboue the knee with a tike, good and hard, and then walke him to chafe him, and put him in a heate, and being somwhat warmed, let him blood in both the brest vaines, and in the vaines of the hinder legges, betweene the hose and the pastorne, reserving the blood to make a charge withal in this maner. Take of that blood two quartes, and of Wheate meale, as it commeth from the mill, halfe a peck, and fiue egges, shelles and all, & stirre them well together, then take a pounde of *Lodon* (*Prouins*) halfe a quarter of an ounce of long pepper, mingle them altogether, and charge all the holes of both the nostrils, eares, and priuie members therwith, and walke him vpon some hard ground eyght houres after, then let him vnder the stable, and let him stande tyed vp without meate or drinke, & walke him the next day as you did before, & then giue him a little warme water, with a pynte of Oyle in it, and after, a little hay, and prouender, then walke him vpon the hard ground you shall finde your horse hath voyded many little lose lumpes of fleshe, and that day or the next day after he will voyde the bagge whole, which will be within three or foure dayes after. Vse him as before, vntill the first day after his resting, that he haue his meate and drinke as he was wont. This medicine is also good for the colike, or paine in the belly, it is thought to be also good for a horse, a mare, or geldyng with the sight of a Worme, or the water dogge. To keepe your horse from cuttes, it is good to rub the hinder part with the iuice of the leaues of the

Gourde in the middes of Sommer. Many times Horſes are troubled with wormes, or bots, which you ſhal perceiue, if they caſt their loke vpon their belly, if they wallow oftentimes, and ſtrike their belly with their foote: the remedy, is Harts horne, Sauine beaten, and geuen him with a little vineger in a horne. *Columella* would haue you rake the Horſe with your hand, and after that you haue plucked out the doung, to waſhe his fundament with ſea water, or brine. *Braſanolus* in his commentary vpon *Hippocrates*, declareth how he cured the Duke of *Ferars* horſe, being in great danger with wormes, by geuing them quicke ſiluer, and *Scordium*, or water *Germander*, when no other medicines would helpe. The Rhewme, or diſtillation, maketh a horſe ſlothfull, dull, and faint, yet will he be led, & ridden, and moderate labour is not amiſſe for him, let him drinke warme water with Wheate braune: the more filth he voides at the mouth, the better will it be for him. There are ſome diſeaſes thought to be vncurable, which if the Horſe had, and was ſold, by the olde lawes he was to be turned backe againe, except the bargaine were otherwiſe: of which number ar, ỹ broken winded, the lunatike, and the mangines, called the Farcine, which diſeaſe if it come once to ỹ ſtones, is thought vncurable. To this they adde the thorough Splent: ſome thinke ỹ broken winded is not to be cured, becauſe it is like to the conſumption of the longs in a man, yet ſome hope of recouery there is, if it be taken in time: for letting of blod in dry diſeaſes, is againſt reaſon. But you may annoint the hole body with wine & oyle, mingled together & warmed, and curry him againſt ỹ heare till he ſweate, and geue him this drinke inward from the firſt day: the iuyce of Piſan, Swines greaſe clarified, & *Amylum*, in new ſweet wine, which being boiled together, you may geue it him with a horne to open his pipes, & ſet him ſo as he ſtand warme. The lunatike eyes, are cured by letting him blod in the temple vaines, bathing the eyes on ỹ outſide with ſome warme bath, & putting into them ſom ſtrong water certaine daies, til they be hole. For the mangineſſe, take the wormes called *Cantharides*, beating them, & mingle with them a little Verdegreaſe, and ſo annoint them with it, warming the body of the Horſe with a fire pan.

Others vſe to waſhe him with warme water twiſe a day, and after, to rubbe him with Salt ſodden in water, till the matter come out. Above all other, they ſay it excelleth in the beginning to anoint him with the fat of a Seale: if it haue run long, you muſt vſe ſtronger medicines, as Lime, Brimſtone, Tarre, old Swines greaſe, of each a like quantitie, boiled together, and with a little oile made in an ointment: they vſe to rub it alſo with the Soote of a Caldron. Againſt many diſeaſes both of Horſes, and Bullockes, they vſe the roote of the hearbe called blacke Elleboꝛ, of ſome Bearfoot, of others Setterwoꝛt, which they thruſt in the breſt of the beaſt, betwirte the fleſh and the ſkinne, making a hole before with a bodkin. Againſt all diſeaſes of horſes, *Vegetius* commendeth this medecine as the cheefeſt, Centoꝛy, Wormewoode, Dogge Fenell, wilde Time, *Sagapen, Betony, Saxifrage, Ariſtolochia Rotunda*, take of ech alike, beate them ſmall, and ſifte them, and if the Horſe haue an ache, giue it him with water, if he be ſerme, with good ſtrong Wine. The olde husbands would not ſuffer their horſes to be let blood, but vppon great neceſſitie, leaſt being vſed to it, if it ſhould at any time be omitted, it ſhould breed ſome diſeaſe: and therefoꝛe in very yong Horſes, and ſuch as be healthy, it is beſt not to let them blode but in the roſe of the mouth. Foꝛ thoſe that be come to their full age, you may let them blood beꝛoꝛe you put them to paſture, but beware you beare a ſteddy hande, and ſtrike them not too deepe: Geldings you ſhall not neede to let blood, the Horſes of *Barbary* (as they ſay) neuer need any medicine.

EVPH. You haue ſpoken enough of Horſes, it is time you ſay ſomething of Aſſes.

Aſſes. *HIP.* It is greatly out of oꝛder, but ſince you will needes haue me ſo to doe, I will not ſticke with you to ſay what I can therein, that eche of you may doe the like in his charge. Aſſes are commonly kept, yet not to bee little ſet by, becauſe of their ſundꝛy commodities, and the hardneſſe of their feeding, foꝛ this poꝛe beaſt contents himſelfe with what meate ſo euer you giue him, Thiſtles, Bꝛyers, Stalkes, Chaffe, wheꝛefoꝛe euery countrey hath ſtoꝛe, is good meate with him: beſides, he

may

may bee abide the ill looking to of a negligent keeper, and abide to sustaine blowes, labor, hunger, and thirst, being seldome, or neuer sicke, and therefore of all other cattel longest endureth: for being a beast nothing chargeable, he serueth for a number of necessary vses: in carrying of burdens, he is comparable to the Horse, he draweth the Cart (so the loade be not unreasonable:) for grinding at the Mill he passeth all others, therefore in the countrey the Asse is most needfull for carrying of things to the market, and Corne to the Mill. In *Egypt* and *Barbary* (where the ground is very light) they haue also their vse in plowing: and the fine Ladies of the country do ride vpon Asses richely furnished: yea, they be very apt to be taught, so as at this day in *Alcayr* you shall haue them daunce very mannerly, and keepe measure with their Musitian. *Varro* maketh mention of two sortes, one wilde, whereof in *Phrigia* and *Lycaonia* there are great store: the wild Asses that are tamed, are passing good, specially for breede, & they are easily broken: the other is tame, of which I meane to speake. The best are brought out of *Arcadia* (although *Varro* seemes to commend the breede of *Italy* for goodnesse.) He that will haue a breede of Asses, must haue the male & the female both of reasonable age, large bodied, sound, and of a good kind; the male must be at the least three yeere old, for from thence, till they be tame, they be fit for breeding: they bring forth their Coltes sometimes at two yeeres and a halfe, but three yeeres is the best age: the female goeth as long with her burden as the Mare, and dischargeth it all respectes as she doeth: but she will not very well retaine, except she be tooked immediatly after the foaling to runne about, she commonly goeth forth two. When she foaleth, she gets her into some darke place, and keepes her selfe from being tame. They will beare all their life time, which as (*Aristotle* saith) is thirtie yeeres: they are put to the horse a little before the tenth of June, and beare euery other yeere: they bring forth their Fole at the twelfmoneth. While they be with Fole: they must not be greatly laboured, for hazarding their Fole: the male must neuer be idle, for he is as lecherous as the deuill, and by reason will ware naught. The colt is suffered to run with the damme the

first

firſt yere, & the next is gently tied vp with her, only in the night times: the third yere they are broken, according to their vſe. The damme doth wonderfully loue her young ſo much, as ſhee will not ſticke to come through the fire to it: but the water ſhee dare in no wiſe come neare, no not to touch it with her foote, neither will ſhe drinke in any ſtrange water, but where ſhe is vſed to be watred, and ſo as ſhe may goe & ſtand dry foote. They delight to be lodged in wide roomes, & are troubled with fearefull dreames in their ſleepes, whereat they ſo pawe with their legges, ỹ if they lie neere any hard thing, they hurt their feete: in drinking, they ſcarſely touch the water with their lippes (as it is thought) for feare of wetting their goodly eares, whoſe ſhadowes they ſee in their drinking: no beaſt can worſe away with colde then this. If your Aſſes halt at any time, you ſhal thus remedy thẽ, waſh al the foote wỏ warme water, & afterward make them clean with a ſharp knife, which when you haue don, take old chamber lye, as hot as may be, & melt therein goates ſuet: or if you haue not ỹ, Pre tallow, & anoint al ỹ foote til they be hole.

EVPHR. They ſay, that betwirt an Aſſe, and a Mare, is gotten the moile, as a third kind, of two ſundry kinds, neither reſembling the father, nor the mother.

Moyles.

HIP. It is very true: as of the ſhee Aſſe, and the Horſe, is engendred the ſhee moile, but altogether ſtubborne, and vnreaſonable dul. Alſo of the Mare, & the wild Aſſe, being broken are bred moiles that runne paſſing ſwiftly, and are wonderful hard hoofed, but rugged of their bodie, & miſchieuous ſtomaked, yet eaſie to be handled: the mares for breed, muſt not be vnder foure yeares, nor aboue ten: they are foled in the twelfth moneth, as Horſes and Aſſes are (as *Ariſtotle* ſaith:) but *Columella* ſaith, their foling time is not before the 13. moneth. The female cõceaueth (as experience teacheth) aſſuredly after ỹ ſeuenth day: ỹ male doth neuer better horſe, thẽ when he is moſt tired. She that conceaueth not before ſhe hath caſt her colts teeth, is taken to be barren, as ſhe likewiſe ỹ takes not at ỹ firſt horſing. Thoſe that are gotten betwirt a horſe and an Aſſe in olde time, were called Mevards, & ſuch as were brought forth betwirt an Aſſe & a Mare, they called moyles. The moyles themſelues (they ſay)

say) doe neuer ingender: and if at any time they did, it was taken for monstrous, accounting the cause of their barrennesse, the contrarietie of their kinds: which matter a long time troubled both *Aristotle*, and the rest of the philosophers. Though *Aristotle* hath other where written, that moiles doth both ingender, and bring forth: and with him agreeth *Theophrastus*, affirming, that in *Capadocia* they do commonly bring forth, and ingender of themselues. The like doth *Varro*, and before him *Dionysius*, and *Mago* affirme, that the breeding of moyles in the countries of *Affyke*, is neither monstrous, nor geason, but as common as our breed of horses: but the moile is both fairer and better fromaked, that is begotten of an Asse, and a mare. The Stallion that you meane to haue for your race of moiles, must be as faire as you can get, hauing onely this regard, that hee bee large of bodie, bigge necked, broad, and strong ribbed, large, and brawnie brested, his thighes full of synowes, and his legs well knitte, of colour blacke, and spotted: for Asses (though they bee commonly dunne) yet that colour agreeth not well with a moile: some say, that what colour you would haue your moyle to be, with that coloured cloke you must couer your Asse. The Asse so proportioned (as I haue declared) that you meane to appoint for your Stallion, you must straightwaies take from his damme, and put him to some mare that hath a colt sucking of her: you shall easely deceiue the mare, by setting her in a darke place, remouing her owne colt from her, and putting to her in steede therof the Asses colt, which she will nurse as her owne. Afterwardes, when the mare hath bin vsed to ten daies, she will continually after that time giue it suck. The asse being in this order brought vp, will better acquaint him selfe with the Mare, sometimes though he be sucked onely with his owne damme, being brought vp when hee is yong amongst mares, will well enough keepe company with them (as *Columella* saith:) but our Asses are of themselues desirous enough of the Mares, that they neede not to be trained to the matter: for it is a wonderfull coltishe beast, & vnreasonably weapned. He must not be lesse then three yeares old when he couereth your Mares, which must be in the Spring time, when you may best

feede

feed him with graſſe, and good ſtore of oates, and barly: neither muſt you put him to a yong mare, for if ſhe haue not beene horſed before, ſhe wil ſo beat her wooer, that ſhe wil make him like the worſt as long as he liueth: for remedy wherof, you muſt at ſ firſt put to the mare a wilder aſſe, ymay woo her before, but not ſuffered to horſe her, & when you perceiue ſ ſhe is horſing, away with the raſkal, and put to your ſtallion. A place fit for this purpoſe, the country people (as *Columella* ſaith) were wont to haue, which they called a frame, or a brake, with two railes on both ſides, & a litle diſtance betweene, ſ the mare cannot ſtrine, nor turn front the horſe, the lower part encloſed, and the Mare ſtanding lowe, ſo the Aſſe may the better leape her, hauing the vpper ground for his helpe, which when ſhe hath conceaued, & at the twelue months end brought forth, the yere after ſhe muſt be ſuffered to run emptie, that ſhe may the better bring vp her colte. The ſhe moile (being a twelue month old) muſt be taken from the dam, and let run vpon mountains, or wilde places, for the hardning of his hoofes, and the better enduring of labor, for the male is the better for burden, and the female the quicker & lighter: both the kindes doth trauell wel, and till the ground, if the plowman be not vnreaſonable, or the ground ſo ſtiffe, as it requireth a draught of oxen, or horſe. They wil leaue ſtriuing and kicking, if you vſe to giue them wine (as *Plinie* reporteth) who likewiſe writeth, that a moile will liue fourſcore yeres.

EVPH. Since you haue begun with trauelling beaſts, what can you ſay of the Camell.

Camels. *HIP.* The Camel is chiefly vſed in ſ eaſt parts, which ſome ſuppoſe to be the ſeruiceableſt cattell for man that is, and as if were therunto only framed: for he is bumbaſt vpon ſ backe for bearing of burdens. Alſo he hath foure knees, wheras the horſe, the aſſe, and ſuch others haue but two: for his hinder legs bow forward as a mans knee doth, wherwith he kneeleth to receiue his burden. There are two kinds of them, the *Bactrian* and the *Arabian*: the *Bactrian* haue two bunches vpon their backs, and the *Arabian* but one, & the other on their breſt to leane vpō, both ſorts of them lacke their teeth aboue, as the bullocke doth: they al ſerue in thoſe countries for burden, & to carry men in ſ wars:

they

they are as swifte as horses, but some a great deale more then others: neither will they breake their pace, nor carry more burdens then they are vsed to: they beare a naturall hatred to the horse: and can forbeare drinke for foure daies: he drinkes when he may, both for that is past, and to come, troubling the water before with his foot, otherwise he delighteth not in it: he is fed beside his pasture, and such thinges as he getteth in the Wode, with Mates, Barle, and salt: he engendreth backward, as the Elephantes, Tygers, Lions, Connies, and such other, whose instruments grow backeward: when they meane to go to rut, they seeke the secretest and desartest places that may be: neither may a man at any time come neare them, without great danger. They go with yong a twelvemonth, and are meete for breede at three yeeres olde, and after a yeere they conceaue again: they beare but one at once, as Elephants, and other great beasts doe: they giue milke till they be great. Againe (as *Aristotle* saith) *Didymus* in his bookes of husbandrie writeth, that the Camell hath a regard to his blood, as the horse hath, and lyeth neither with mother, nor sister. And the female Camell of *Bactria*, feeding vpon the Mountaines amongest the wilde Boares, is often times beamed of the Boare, and conceaueth. Of the Boare and the shee Camell, is ingendered the Camell with two crompes vpon the backe, as the Moyle is of the Asse, and the Mare, and in diuers thinges resembleth his sire, as in shrilled heares, strength, & not fainting in the mire, but going nimbly through, and in carrying double so much as other Camelles, as the same authour saith. The females of them are spaide, to serue the better for the warres: they liue (as *Aristotle* saith) fiftie yeeres, others say a hundred yeeres, and are subiect to madnesse (as *Plinie* saith) there are a kinde of them called *Camalleopards*, that haue the resemblance of two diuers beasts, the hoofes and hinder legges like an Oxe, his forelegs and his head like the Camell, the necke like a horse, being flecked white and redde. *Strabo* saith, he is couered like a fallow Deare, straight necked, and hie, like an Ostrige, his head somthing higher then a Camels.

EVPHOR. I remember I haue seene the like beast for all the

the world in a peere of tapestry with blacke Mores, with their wiues and baggage vpon their backes, saue that they had their little hornes vppon their heades, like as some sheepe haue. I thinke *Heliodorus* in hys *Aethiopicke* storie, did first describe this beast, but these outlandish beastes wee meddle not much with.

HIP. Go to *EVPHORBVS*, let vs now see you discharge your part, according to your promise, and tell vs some parte of your cunning in keeping your cattell: and next to the Horse in worthinesse, commeth the Oxe.

Bullocks. *EVPHOR.* Since it is so appointed, I am contented to shewe you what I can say touching my poore skill: and first, I may not suffer the horse to challenge the cheefe place; when the olde writers and auncient people did alwaies giue the generall and cheefe praise to the Oxe, as to a good plowman and faithfull seruant; for *Hesiodus*, a most ancient writer, and the greatest author of our profession affirmeth, that the family doth consist of the husbande, the wife, and the Oxe. The selfe same by his authoritie doth *Aristotle* seeme to allege in his Politicks, and in his Oeconomickes, which beast was alwaies of that honor and estimation, that he was condemned in a great penalty, whosoeuer did kill him, being a fellow, and cheefe helper in our husbandry. By the worthines of this beast, many great things receiued their names of them: for of the number, beautie, and fertilitie of Heyfars, did Italy (as they say) first take his name, because *Hercules* pursued the noble Bullockes *Italos*. This is the cheefe companion of man in his labours, and the trustie seruant of the goddesse *Ceres*: in many great things for the roialtie of the Oxe, they deriued their names from the same, as in calling also the Grape *Bumammam*: in fine, *Iupiter* him selfe thought good to conuert into this shape his sweete darling *Europa*. Moreouer, of a rotten Steere are engendred the swiftest Bees, the mothers of Hony, wherefore they were called of the Greekes (as *Varro* saith) *Bubina*. The same *Varro* numbreth foure degrees in their age: the first of Calues, the seconde of Stirkinges, the third Steeres, the fourth Oxen, the Sexes: of the first, the Bulcalfe, and the Coinecalfe: the seconde, the Heyfar,

fat: and the Steere: in the third and fourth, the Bull, and the Cowe: the barraine Cowe he calleth *Taurum*, the melch Cowe *Hordam*, from whence came the feaſts called *Hordicalia*, becauſe the milchkine were then ſacrificed. The goodneſſe of this beaſt is diuers, according to the diuerſitie of the country: the beſt were counted in the olde time to be of the breede of *Athamis*, *Campania*, and *Tuſcum*: at this day we take the beſt kind to be in Hungary, Burgundy, Friſland, Denmarke, and in England. Of bullocks, ſome are for the draught, ſome for the ſtall, and ſome for the payle: to what purpoſe ſoeuer they ſerue, whether it be for labour, for milking, or for feeding, it is beſt alwaies to chooſe ſuch as are young, of luſty age, rather then thoſe that are olde and barraine, the wordes of couenant in the olde time (as *Varro* ſaith) in ſelling of Bullocks, were theſe: Do you warrant theſe Bullockes, or Steeres, that you ſell to be ſound, ſeen ſound heard, and without fault? The Butchers that bie for ſlaughter, and ſuch as bie for ſacrifice, bie no worde of warrantiſe: and though ſome bullocks are choſen by their ſtrength, ſome by the greatnes of their body, yet the beſt commonly haue theſe properties: large, well knit, and ſound limmes, a long, a large, and deepe ſides body, blacke horned, though in the colour there be no great matter, yet ſome miſlike the whits for their tenderneſſe, which when *Varro* conſenteth, who would haue them brode for headed, great eyed and blacke, his eare rough and heary, his chawes to be large and wide, his lippes blackiſh, his necke well harned, and thicke, his dewlappes large, hanging aſwome from his necke to his knees, his ſhoulders wroade, his hips not hard, or ſtubborne in feeling, his belly deape, his legges well ſtitte, full of ſynowes, and ſtraight, rather ſhort then long, the better to ſuſtaine the weight of his body, his knees ſtraight and great, his feete one farre from the other, not broad, nor turning in, but euenly ſpreading, the heare of all his body thicke and ſhort, his tayle long, and bigge heared. *Palladius* thinketh the beſt time for buying of draught Oxen, to be in March, when being bare, they cannot eaſily hide their faults, by the reaſon of the heare, nor by reaſon of their weakneſſe bee ſtubborne to be handled. It is beſt to buy them of your

neighbour

neighbour, leaſt the change of ayre and ſoile hurt them: for the Bullock that is brought vp neere home, is better then the ſtranger, becauſe he is neither troubled with change of ayre, water, nor paſture: if you can not haue them neare you, bye them from ſome like country, or rather from a harder, and be well aſſured that you bye them euen matched, leſt in their labor, the ſtronger ſpoyle the weaker. Take beſides that they be gentill, ſhilfull in their labour, fearefull of the goade, and the driuer, not dreading any water, or bridge: great feeders, but ſoftly, and not ouerhaſtily: for ſuch doe beſt digeſt their meate. In chooſing of Bulles, or Kine, the very like ſignes are to be required, that the Bull differeth from the Ore, in that he hath a more frowning and fierce looke, ſhorter hornes, greater, and thicker neck ſo bigge, as it ſeemes the greateſt part of his bodie, his belly ſomething gaunter, and meeter for Bulling of Kine. The Bull before he be ſuffered to goe with the Kine, muſt be well feede with graſſe, chaffe, or hay, and kept ſeuerally by himſelfe, neyther muſt he goe to the Cowe, till the tenth of June. *Varro* wouldé not ſuffer him before the riſing of the *Lira*: but *Ariſtotle* wouldé haue him all the reddying time, to go in paſture with the kine. The cowe likewiſe would be hie of ſtature, and long bodied, hauing great bodens, broade foreheade, faire hornes, and ſmooth, and all other tokens almoſt that is required in the Bull, ſpecially to be yong: for when they paſſe fiueteen yeres olde, they are not good for breede, but they liue many times farre longer if their paſture be good, & they kept from diſeaſes. The olde Cowe giueth more milke then the yong, according to the countrey people prouerbes, olde Kine, more milke, yong Hennes more egges. Againe, vnder three yeres olde, you may not hinder them to go to Bull: if they chaunce to be with Calfe before, you muſt put the Calfe from them, and milke them fortwo daies after, leaſt their bodies be ſore, after hauen forbeare milking. *Plinie* writeth, that at a yeere olde they be fruitefull, but the breede will be little, and happeneth ill alto-gether: yong ones muſt euerie yere in their kindes (as in all other) haue their double, that the olde that be barraine, or vnmeete for breeding, may be put readyly ſold, as remained in the

the Plough: for when they be barren (as *Columella* saith) they will labour as well as Oxen, by reason they are drier vp, but we vse commonly to fatte them when their age is knowen by the knottes and circles of their hornes, which *Plinie* marketh likewise in Goates. The time for going to Bull, some take to be best in the midst of the spring: *Palladius* would haue it in July, for so in the twelfth moneth she shal Calue, for so long she goeth with Calfe (as the common people say) a Cowe and a Mare haue both one time. In many places they desire to haue their Cowes goe to Bull a thirtie or fortie daies after the tenth of June, that they may calue in March, or Aprill: that they would haue much milke, so ouer the matter, as their mind goe to Bull from the spring, to winter, whereby they alwaies milke fresh: at one bulling she conceiueth, if she chaunce to faile, she goeth to Bull againe with in twentie daies after: some say, if she be the Bull come downe on the left side of the cowe, it will be a Cowe Calfe, if on the right side, a Bull Calfe. The Greekes affirme, that if you will haue a bull calfe, you must knitte the right stone of the Bull, and for a Cowe Calfe, the left: *Varro* saith, that if you put the Cowe to the Bull immediatly after yelding, she conceiueth: *Columella* affirmeth fifteene daies to be enough for an Bull. I thinke he will well ynough serue twentie daies, if he be such a Bull as I described: if you haue good store of pasture, you may let them goe to Bull euery yeare, but you must beware your kine be not too fatte, for that will hinder their being fruitfull Calfe. The Cowe should when she is reddying, haue but short pasture, and the Bull hardly fed: so shall neither she be too fatt, nor he vnlusky. If the cowe will not take the Bull, you must stampe sea Onyons in water, and rubbe her vnder the taile with it: if the Bull be not lecherous enough about his businesse, take the powder of a Sturgeon, burne it, and make it in powder, and saith it will be good with the powder, put he his stones, and his pizell with all, which will serue to the like purpose in all other beastes (as *Columella* saith) his courage is also stirred vp by the like odours that you speake of for your horse. A Bull ought not to leap the Cowe about twelue in a day (some thinke) but I finde by experience, that he may

nature. In some places they haue common bulles, and common Boares to euery towne: a Bull will waxe furious at the sight of any redde thing, as the Elephant, and the Lyon, which cannot in no wyse abide the sight of any white thing. A Cowe will geue sucke to a straunge Calfe, but let not the calues lie with them in the night, for feare of ouerlaying them. Some keepe them at the first, and suckle them with Goates, or Whay, hauing a little Bunne in it, or Pollard, wherewith they bring them vppe, till they be able to feede. Whether you meane to reare them for breede, labour, or fe-ding, you must let them want no store of good pasture: for though they bee of neuer so great a breede, yet if their pasture bee scantie, they will neuer come to their full growth: for pasture maketh the beast (as the Countrey people saye.) *Mago*, and the olde husbandes, would haue you to geld them while they be verye yong, which order wee like well obserue in cutting of them: and in the Spring, or at the fall of the leafe, when they be three moneths olde, or there about, wee vse to geld the Bull Calues, and dog the Cowe calues, soluing vppe the sinewes, and annointing it with fresh butter. *Columella* would not haue them cut, but their stones broken by little and little with an instrument, which kinde of gelding he best liketh, because in the litle yong ones, it is done without bleeding: for when they be something growen vp, it is better to cut them at two yeere olde, then at a yeere olde, which must be done in the Spring, or at the fall of the leafe, the Moone being in the waine: you must tie vp the Calfe to a frame, and before you cut him, you must fasten about the synewes, wherby the stones hang, a couple of small sticks like a paire of tongs, and taking holde therwith, cut away the stones, so as a little of the vpper parte of the same remaine with the foresaid synewes: for by this meanes you shall not haue the beast by ouermuch bleeding, neither is his stomacke quite taken away, but hath something of the father remaining, and yet loseth his abilitie of ingendring. Notwithstanding, if you suffer him immediately vppon this new cutting to go to the Cowe, it is aduenture he may get a Calfe, but let him not do so, for

feare

feare of bleeding to death. The ſwounde muſt be annointed with the Aſhes of Vines, and Lytharge, and he muſt not be ſuffered the firſt day to drinke, but nouriſhed with a little meate: three daies after he muſt be dieted, according to his feeblenes, with greene bowes, and ſweete graſſe cut for him, and looked to, that he drinke not too much: and if you will, you may annoint the ſore for three daies with Tarre, and a little Aſhes, and Oile, to heale him the ſoner, and to keepe the place from flyes. You muſt vſe them while they be yet young, to ſuffer to be handled, and ſtroked, and tied vp to the Manger, that when they ſhould come to be broken, they may be handled with more eaſe, and leſſe danger: but *Columella* forbiddes you to meddle with the breaking, or labouring of them, before three yeere old, and after fiue: for the one is to ſoone, the other to late. Thoſe that you haue taken vp wilde, and be well framed, and proportioned, according to my paterne, you ſhall handle and breake in this ſort. Firſt of all, ſee that you haue a large roome, where the breaker may eaſely goe vp and downe, and out at his pleaſure, without any danger. Before the ſtable, you muſt haue a faire fielde, that the Steeres may haue libertie enough, and not be feard, or halfred, with trees, or buſhes. In the ſtable, you muſt haue certaine ſtalles, or bordes, yoke wiſe ſet vp, a ſeuen foote from the ground, to which the Steeres may be tied: this done, chooſe you a faire day for the purpoſe, and taking them vp, bring them into the ſtable: and if they be vnreaſonable wild and curſt, let them ſtand tied a day and a night without any meate, to tame them withall: afterwardes let him that keepes them, offer them a little meate, not ſidewaies, or behinde, but before coying them al the while, and ſpeaking gently to them, ſtroking their backes, and their moſels, ſprinckling them with a little ſweete wine, taking good heede, that they ſtrike him neither with head, nor with heele: for if he once get that tricke, he will neuer leaue it. Thus being a little acquainted with him, you ſhall rubbe his mouth with Salt, and let downe into his throte certaine lumpes of ſalt tallowe, and powring after a quart of good wine, which will make him in three daies, as good a fellowe as you woulde wiſhe him to be.

to yoke them together, & let them draw some light thing, as plowe in a light plowed ground, that their labor hurte not their nerues. The rediest way of breaking them, is to yoke them with an olde Oxe, that may easely instruct them: if he happen to lie downe in the furrowe, doe neither beate him, nor feare him, but binde his feete together, and let him lie, that he may neither feare, nor feede: which being well punished with hunger, and thirst, will teach him to leaue that sullen tricke. The feeding of this kinde of cattel is diuers, according to the diuersitie of Countries: if there be store of good pasture in the Countrey, there is no feede to that: in Countries where wanteth pasture, and specially in Winter, he must be kept in the stall, and fed with such fodder as the Countrey yeldes. Where there are Caues to be had, it is the best feeding for them: and hay is very good, Chaffe, and Cole stalkes with Chaffe and hay, and chopt Straw boyled together in water, is very good feeding for Winter. In some places, they feede altogether with neate thrashen straw: in many places they giue them Lupines steped in water, or Cheches, or Peason, mingled with Chaffe: besides the branches and leaues of Vines, the greene branches of Elme, Ashe, Poplar, and Holme, in winter, when other greene bowes faile, the Figge tree will serue, or the boughs of Oke, and Holly. Oxen are some fatte in good pasture, and with Wheate, Rapes, Apples, and Radishe: Oxen, or Kine, will be pallish fatte, where there wanteth pasture, by giuing them greate mixt with Wheate, Chaffe, and Rapes, or Graines. They will waxe the sooner fatte, in washing them with warme water, or (as *Plinie* saith) by cutting their skinnes, and blowing in winde to their bellies with a reede. *Seeing* (saith he) that they will be fatte, if when they are taken from pasture, you giue them the fruit and Coleworts chopt and steped in sharpe vinegar, and after barleys Chaffe, being well cleansed, and mingled with Wheat branne, for the space of foure or fiue dales, feeding them after with good store of fodder: in Winter you must feede them at the first Cocke crowing, and againe when the daye begins to breake: in Summer first at the breaking of the daye, then at noone, and at night: in Summer

you

you muſt water them twice a day; three houres after noone, and three houres after: in winter, once a day with warme water, which is alſo thought to be good for fruitfulneſſe: and therefore the Lakes that are filled with Raine water, are good for them. This kind of cattell deſireth not cleane, or faire water, but foule and puddle: yet it were better to giue them faire water. Alſo, you muſt prouide them of ſome warme paſtures for the winter, and in ſommer, very cole: chiefly Mountaines where they may harbour vpon the bulhes; and riche low good liuing among the Woods: but in lowe groundes and neare the Riuer, Oxen are ſooner fatted, and haue giuen a greater quantitie of Milke. In ſommer, they lie abroade all the nights in many places: yea, in England you ſhall haue them ſodred abroad all the Winter. Though they be able to abide colde, yet muſt you prouide them of large ſtalles, for the ſuccouring of ſuch as be great with Calfe. Your ſtables, or Orſkals muſt ſtand dry, and be well ſtored, either with ſtone, gravell, or ſand: the ſtone is ill ſuffer no water to abide vpon it, the other will ſoone drinke it vp and dry it: both theſe muſt be laied ſlope, that the water may run away, for rotting the groundſicke, and annoying their houſes. Let them open eaſtward the ſouth, ſo ſhall they be the drier, and the warmer: notwithſtanding, let your windowes open ſouth and eaſt, which being ſhutte in Winter, and open in Sommer, may giue a healthfull aire. In fine, as neare as may be, let the houſes be neither too hotte, nor too colde, neither as dry as may be: *Columella* would haue two Oxehouſes, one for the winter, the other for the ſommer both couered, but well and high walled, for keeping out of wilde beaſtes. The ſtals would be eight foote wide, that they may haue roome enough to lye in, that the kine great with Calfe hurt not one the other, nor the ſtronger Oxe ſtrong the weaker: and that there may be roome for their keepers to come about them, and for yoking them. *Varro* would haue the Oxehouſe open towardes the Eaſt, and to be neare the fire: for fire is naturally beneficiall to cattell, both for the drying vp of the infectiue vapours, and the keeping of the cattell warme. Beſides, by ſeeing of the fire, they are made gentler, and by the heate thereof, what cold they haue taken in the euill aire, is expelled, and diuers other vnkinde diſeaſes re-

red. The houses must be seuered with diuers rowmes, doubles and tackes, the tackes must stand no higher then the Oxe may easily reach, and must haue high partitions, as one beast beguile not the other, whereto they must be well halfred and tied, for hurting one the other: *Caue* I would haue the partitions lettiled. Moreouer, it is to no purpose to stude them well, except you also looke to the keeping of them in health, and clenlines, and therefore whether they be in house, or abroade, you must alwaies haue a speciall regard vnto them, and ouerlooke them in the night, specially, if there be any Kine amongest them with Calfe. And though it be needefull at all times to ouerlee them, both morning and euening, yet most needefull is it of all other times, to see to them in the spring, when you first put them to pasture: for at that time, by reason of their change of diet, both Oxen, Kine, and Bullocks, are most in danger of sickenesse: in Winter againe to looke to them, that they be not, for sparing of charges, kept le poore, as they be vtterly spoiled. And therefore you must spare no litter, specially when they come from labour, to rubbe them, and dry them, stroking them with your hands, and raising the hide from the flesh, which will do them great good. In removing from stie, or out of the pasture, you must alwaies first well with water, before you bring them into the house, that the durt and filthy cleauing to them, breede no diseases, nor soften their hoofes. Beware of too much cold, or heate, for too much of either, filleth them with diseases. You must take heede they be not chalke, nor chafed vp and downe, specially in hotte weather, for that bringeth them to a Feauer, or causeth them to haue a Flixe. Take heede also, that there come neither Swine, nor Poultry neare their stalles, for both of them with their dounging poisoneth the beast. The dounging of a sicke Swine doth breede the pestilence, or murraine amongest cattell. You must away with all manner of carrions, and bury them well for infecting your cattell. If so be the murraine chance to come amongst them, you must presently change the ayre, and seuer your Cattell fare a sunder in diuers pastures, keeping the sound from the sicke, that they be not infected, not suffering them either to feede together, or drinke together. The Pestilence, or Murraine, is a common name, but there are

The Murraine and his diuers kindes.

diuers

diuers kindes of it: in some Countreies, the cattell breedeth, and runne both at the nose and mouth, in others again they be dry, and so alway thirst, and more sometime it comes in the loines, and causeth them to halt before, or behinde, sometime in their kidnes, and appeareth by the weakneſſe of their hinder parts, wherein they ſeeme to haue great paine in their loines. An other kinde there is, that riſeth like a Farcine, with Pimples ouer al the body, now appearing, and preſently banishing, and comming out in a newe place. An other ſort, betwirt the hide and the fleſh, wherein the humor ſweateth out in diuers parts of the body. Sometime it is like a leproſie, when all the ſkinne is full of little pimples, and ſometime a kinde of madneſſe, wherin they neither heare, nor ſee ſo well as they were wont, though they looke faire and fatte and lusty enough. Euery one of theſe kindes, are contagious and infectiue, and therefore as ſoone as you perceaue them infected, you muſt preſently put them a ſunder for infecting the whole ſtock, leaſt you impute that to the wrath of GOD (as many fooles doe) which happeneth through your owne beaſtlineſſe, and negligence. The common remedy (as *Columella* ſaith) is the rootes of *Angellica*, and ſea Thiſtell mingled with Fenell ſeede, and with new boiled Wine, Wheat flowre, and hotte water to be ſprinckled vpon them. The common people, when they perceiue either their Horſe, or Bullock ſick, or any other cattel elſe, they vſe to take the roote of blacke Ellebor, called of ſome *Conſiligo*, of others Bearefoote, and for a Bullocke, to thruſt it in the Dewlappe, for a Horſe, in the breſt, for Swine, or Sheepe, through the eare, making a hole with a bodkin, and thruſting the roote preſently through, which the newe wound holdeth faſt that it can not fall out, whereunto all the whole force of the poyſon doth straightwaies gather, and runneth out in filthy water. Perfumes in this caſe (as *Vegetius* teacheth) doe much good, as Brymſtone, vnſlected Lime, Garlike, wilde Marioram, and Coriander ſeede, laied vppon the coles, and the Oxen ſo held, as they may receiue the ſmoke by their mouth & noſe, that it may fill their brain, and their whole body with a healthful aire. It is good alſo thus to perfume the whole body, both for the health of the ſicke, and preſeruing of the whole. Before I proceede any farther, I will ſet you downe what kinde of Spices, and what

Setterwoort.

quantitie you ought alwayes to haue in a readinesse for your
cattell. You muſt haue of the roote of Fenericke, halfe a pounde of
Liquerice, one pounde of Graines, Turmerick, halfe a pounde,
or a quarterne of Barberries, one pounde of long Pepper, halfe
a pounde of Treacle of Geane, a pounde of Aniſeed, halfe a pound
of Comin, halfe a pounde of Madder, Dytment, halfe a poũd. The
hearbe whoſe roote you muſt vſe (as I ſaide before) groweth in
many places in the woods:
it was once brought vnto
me by chaunce from Darn-
dall in Suſſex, by one Ri-
charde Andrewes, a good
painfull ſearcher out of ſuch
thinges: the picture whereof,
I haue here ſet before you,
for your better knowledge.
For beſide hys preſent re-
medying of rattell, he ſer-
ueth againſt diuers diſea-
ſes in man, ſpecially for the
Quartane, as the learned
Matthiolus hath in his de-
ſcription of Plants menci-
oned. To returne to my cat-
tell: if they want their di-
geſtion, or chawe not Cud,
which diſeaſes is perceiued
by often belching, and noyſe
in the belly, with forbearing of their meate, dulneſſe of their
eies, and ſtanding of themſelues. Take a handful of Pellito-
ry of Spaine, as much of Heartwyall, as much of Fetherfew,
Sage, Penyroyall, and Waylatt, three pintes of very ſtrong
ale or drinke: ſeeth them together three or foure wallops, and
giue it him blood warme in the morning, not offering him to
drinke, till the after noone: if you neglect this diſeaſe, ſo that
he be pained in the belly, and fall of greeſe, he will grone and
neuer ſtand ſtill in one place. For remedy whereof, you ſhall binde
his tayle cloſe by the Rumpe, as ſtraite as may be, and giue
him a quarte of Wine, with a pinte of the pureſt Oyle:

For Cru-
ditie.

and

and after driue him a pace for the space of a mile and a halfe: annoint your hands with grease, and rake him, after hard rake, make him runne againe: some vse to tie a bush to the taile, within a handfull of the rumpe. There is a disease which they call the Wilde, others the Taile, which is perceiued by the lowenesse of loosenesse betwixt the ioints of take the Taile, and feele betwixt euery ioint, and where the ioint seemeth to be a lumber, or is soft and not close as the other ioints, there take and slitte him the longest way vnder the Taile, about two inches long, and lay in the wound Salt, Soote, and Garlike, and binde it fast with a clout about it. The Collick, or paine in the belly, is put away in the beholding of Water in the water, specially Duckes (as you said before) or Payles: for the sight of the Ducke, as *Vegetius* and *Columella* say, is a present remedie to this beast. For the Flix, or the Lasko, which in some places they call the Ray, take Sloes and dry them in powder, and giue it them to drinke: if it be the bloody Flixe, the old fellowes were wont to cure it in this sort. They tooke not the beast to drink in three daies, and kept him fasting the first day, and gaue him the stones of Reasins or Grapes, dryed and made in powder two pounds, with a quart of sharpe tarte Wine, and suffered them to drinke no other drinke, and made them eate the braunsling of wilde Olive trees, and Mallyce trees: and if they mended not with this, they burnt them in the forehead to the very braine pan, and cut off their eares. The wounds, till they were whole, they washed with Oxpisse: but the cut parts loues to be healed with Oyle and Pitch. If your Calues haue the Ray or Lasko, take sweete milke, and put there in the Rennet of a Calfe, make it no thicker but as the Calfe may well drinke it, and giue it him luke warme. If your Bullocke haue the Cough, and it be but beginning, giue him a pint of Barly meale with the yolke of an Egge, the Reasins stones in sweet Wine and strained, and mingle them together and giue it him fasting. Nits Grains beaten and mingled with Flower, fried Beanes, and meale of Lentils, all three together, and giuen him in a drinke. *Columella* would haue you giue them Oxe dung thoyle, and mingled with Beanes that are but a little broken in the Mill, and Lentils small ground, and mingled with water. The old Cough they cured with foure pounds of Hy-

The taile.

The Flix.

Lasko in Calues.

The Cough.

sope,

lope, steped in three pintes of Water, and mingled with Creame; which they muste him to swallowe, and after wards powred into him the water wherein Hyslope had been sodden, also Healon, with Barly water and sodden Hony, when they had the Cough, and Consumption of the Lunges. To keepe them aliue, they vsed to burne the roote of a Walle, and to thrust it through their eares, giuing them to drink a pint of the iuice of Lekes, with the like measure of Oyle and Wine. For the Cough of the Lunges, I vse to giue them long Pepper, Graines, Fenegreeke, Bays, Annilede, Dittany balles, Tamericke, and Madder, beating them all togeather, and seething them in good Ale grounds. If your Calues haue the Cough, take Dittany, and beate it to powder, and giue it them. If they haue the Feuer or Ague, you shall perceiue it by the watring of their eies, the heauinesse of their heade, the driueling at the mouth, beating of the vaines, and heate of the whole body: let them fast one day, the next day let them blood a little betimes in the morning in the taile, after an houre giue them a thicke little balles of Calwortes sodden in Oyle, Water, and Salt, which must be powred fasting into them, fiue dayes together. Beside, you may giue them the toppes of Olyue trees, Lentils, or any tender huntinges, or braunches of Vines, and wipe their mouthes with a Spunge, giuing them colde water thrise a day. The bloud falling downe into the legs, crudeth them, (as *Vegetius* saith) to halt, which as soone as you perceaue, you must straight vnder looke vpon his hoofes, the heate whereof will declare his greefe, beside, he will scarse suffer you to touch it. But if so be the blood be yet aboue the hoofe in the legges, you shall dissolue it with good rubbing, or if not with that, with Scarifying, or Pouncing the skinne. If it be in the foote, open it a little with a knife betweene the two clawes, and laye to the foote cloutes dipped in Vinegar and Salt, making him a shoe of Browne, and be well ware he conuaye into any water, but stand dry. This bloud, if it be not let out, will needs to matter, which will be long ere it heale: if it be opened at the first with a knife, and made cleane, and after cloutes dipped in Water, Salt, and Oyle laide to it, and at the last annointed with olde Swines grease, and Goates suet boiled togeather, it will quickly be whole. This disease, as I take it, the country people

The Feauer.

Halting.

call

call the Foule, or the Wilde, which they sometime cure with drawing a rope of Straw, or heare through the Cleefe, till it bleede; or by searing of it with a hotte iron. If the blood be in the lower part of the Hoofe, the vttermoft part of the Clee is pared to the quicke, and so the blood let out, and after, the foote wrapped with clowtes and dawbed with Waxe, you muft open the hoofe in the middeft, except the matter be ripe. If he halte by reason of the Crampe, or paine of the finewes, you shall rub his knees, thighes, and legges, with Salt and Oyle, till he be whole. If his knees or ioyntes be swolen, they muft be bathed with warme Vineger and Linfeede, or Pylet beaten and laid to it, with water and Honie. Alfo Spunges wette in hotte water, and dried againe, and annointed with Hony, are very good to be laid to the knees: if vnder the swelling there be any humor, Leauen, or Barly meale fodde in water and Hony, or fweete Wine, muft be laid to it: and when it is ripe it muft be opened with a knife, and healed as before. All greefes generally, if they be not broken, muft be diffolued whileft they are neine, with bathes and fomentations: and if they be old, they muft be burned, and the burning annointed with Butter, or Goates fuet. If he haue hurt his heele, or his hoofe, ftone Pitch, Waxe ftone, and greene Wooll, muft be burnt vpon the fore with a hot iron. The like muft be done when he is hurt with a Stub, a Thorne, or a Paile, being firft plucked out, or if it be darke deepe, it muft be opened wide with a knife, and so handled: for ribbed heeles, take and raft him, and binde his legges faft together, then take your knife, and cut it out as nie as you can, and let him bleed well: then take a penifworth of Verdegreafe, and the yolke of an Egge, and temper them well together, and binde them clofe for the place, and he fhall heale. If the Vdder of your Kine be fwell, you fhall bathe them with Iuie fodden in dalfe Beare, or Ale, and fmoke them with Hony Combes, and Cammomell. If the Bullockes fierce be neare worne, and fwelled, wafhe them in Ore pyffe warmed, and kindling a fire of twigges or fpraps, when the flame is done, cauſe him to ſtand vpon the hotte imbers, and annoint his hornes with Tarr, and Oyle, or Hogges greafe. They will neuer lightly hall, if after they haue bin housed, their feet be waſhed well with cold water, and afterwards their paſterns, and the places betweene the

Cleés,

Skabbes.

this be rubbed with old Swines greafe. The skabs or mangineſſe, is gotten away with rubbing them with Campes Carlicke, which alſo cureth the biting of a madde Dogge: beſides, Pentriall and Wormſtone, beaten and boiled with Oyle, Wineger, and water, and after whilſt it is warme, a little Alom made in powder and caſt into it, doth cure the ſkabbe, being annointed in the ſunſhine. Other vſe to annoint them with butter and buttockes piſſe: and ſome againe take Roſen, tarre, and Wine, and vſe it as a Pultiſſe. Hidebound, is when the ſkin ſo ſticketh to his backe, that you can not take it vp from the ribbes, which happeneth by ſuffering him to take colde after his ſwette, or if after his labour he be wette with raine, or brought lowe with ſickneſſe: which, becauſe it is very dangerous, you muſt looke, that when they come from their labour, and are hot, you ſprinkle them with Wine, and giue them ſome peeces of fatte or ſuet. But if they be already Hidebound, it is good you ſeeth ſome Way leaues, and with the warme decoction thereof, to bath his backe, and to robbe him all ouer with Wine and Oyle mingled together, and to lift and pluck vp the ſkinne round about, and that abroad while the ſunne ſhineth. If his bleeding ſtench not after the cutting of the vaine, the remedy is to lay his own doung to the place. A common medicine for all diſeaſes as *Vegetius* reporteth is this: the rote of a ſea Onion, the rote of the Popler, and the common Sallet, of ech a ſufficient quantitie, lay them in water, and giue it your cattell to drinke till they be whole: which alſo being giuen in the beginning of the ſpring, for the ſpace of fourteene daies, preſerueth them from all ſickneſſe. Now that you haue heard in what ſort the olde husbands did remedy the diſeaſes in their cattell, I ſhall briefely declare vnto you the remedies that are obſerued in ſundry diſeaſes at this day, whereof I haue chopt in ſome amongſt the medecines before. Hidebound.

For the murraine.

For the murraine: it beginneth at the firſt in the throt, and ſwelleth in the head, and rotteth with much noiſe in the throte, whereby it is perceiued: take a quart of neiwe Oyle, take a penniworth of Butter, a penniworth of Carlicke, two penniworth of Engliſh ſaffron, two penniworth of Cinamon, two penniworth of Turmericke, a quantitie of Bearbegrace, a quantitie of Bittanie, mingle them altogether, & giue it him warme:

then

then take an alle, and thrust the toppe of his nose vpward, take but the very toppe to thrust through, and not to the headward, then let him blood in the necke almost a pottell, if he bee able: saue the blode, and let it stande, if it change, he may liue, if not, he dieth. Another for the same. Where he swelleth about the iawes and vp to the eares, open him vnder the iawes to the rot of the tong, and get in your finger, and open it a good wideues, then take a good peece of rustie Bacon, and a handfull of Raggewort, stampe them well togither, and fill the hole full with it: then let him blode at the nose, and the tong. A drinke for the same. Take Tansie, Yearbegrace, Longwort, Hisope, Time, of each a like quantitie, halfe a handfull, stampe them, and take a quart of good allegroundes, and seeth them a wallope, or two: take and straine it, and put the licour into a vessell, put therevnto a penniworth of Graines, a penniworth of long Pepper, a penniworth of Ointment, and a penniworth of Fenegreke giue it the beast luke warm. The sickues of the Loongs is perceiued if the Dewlap be harde closed together very farre vppe: also in hard feeling the hide vpon the backe, it cracketh or snappeth much: also a short husking, and thrusting out the tong withall: if it be much perished on the left side, hee is vncureable, which you shall perceiue by the Hyde, which will sticke fast on that side, and likewise the Dewlappe, if hee be farre gone, he will grone much. The remedie for this disease, is to take long pepper a penniworth, round pepper as much, of graines two penniworth, of Turmericke two penniworth, of fenegreke two penniworth, of Mace as much, Cloues a penniworth, of Amisedes a penniworth, of Madder two penniworth, of Triacle of Geane, the vtter rine of Wallnuts dried, and made in powder, Juniper berries powdred, Ore Longwort, Fetherfewe, Yearbgrace, Tansie, Horse Mintes, Bay berries powdred, a penniworth of Garlicke, a quart of Chamberly, a pinte of Salte, a quantitie of butter. Setter him before, or immediatly after this medicine giuen. The order of Settring a Bullocke is this, take Setterwort, otherwise called Bearefote, and Garlicke like quantitie, pele and stampe the Garlicke, and pare the Setterwort cleane, and wrappe them well in Butter, then cut the Dewlappe two inches

For the Loonges.

Settring of cattell.

inches behinde the sticking place, to the vvaste bone, and cut it alongstwise about two or three inches, and pull the Dewlappe with thy finger, or with a sticke, round about out the from the other, as much as you can possible. Then put the better vvort, Garlike, and Butter, as much as thou canst well put in, and thus do on both sides the Dewlappe, then couple him so that the string may goe through both holes on both sides the Dewlappe, alvvayes remembring to cutte the Dewlappe a handbreadth, or about the bottome, and in any vvise let not him to the bottome, before you put in the medicine. The third day after the slettering loke to the, open the vvounde, and let out the corruption (if it be come downe) if not, put in more of the medicine, and anoint the vvhole rannil if it be much swollen and hard, and vvill not vvork, take a hotte iron, and take up parte of the scorse, the skinne, and the fleshe, in such place as thou seest most convenient, so as it come not to the bone, and thrill the iron through on the one side, and out the other, or ones right under, if the swelling be right beneath, and turne him well if the sweate bathe all his flesh, if they chew not to get into the bone, take doth no harme, and keepe it night a sticke, and pull it out shedding [illegible] Tarre, and so anoint the Dogges scratching every other day. After you have pearsed him with the yron, remember to take a little sticke, and shave, and chippe it in small pieces, or else old Ogle, to rub the hole vvhat all the bone passed. The sickenesse of the Gall, is known by the rumbling eies, if the haire vvith yellow, or clause, as also inwardly the vvasons yellowes vnder the upper lippe of the eare in. The Gal, or Yellows.

Make Chamberlee, and the grounds, or Beere grounds, hard Soote in powder, Mallovvort, beanes Lettice, Plantin leaves, Hearbgrace, Hedgpiche, or Hartcroppe, of eche like quantie, a peruiance of the Lavender, &c. a great Cuckoe, halfe almost a quarte of this medicine, for a small Cuckoe, half: vvhen he hath drunke, take fresh Cowe of the vvall, and tender bread, and rubbe well his tong, and all the roofe of his mouth: then inelly his backe, and cheke it well vvith Chamberlie luke warme: gather all these hearbes in Summer, and keepe them, and make them in powder. This medicine serveth like

like wise for the Lunges. If a Bullocke be diseased in the Liuer, he complaineth first in the leggers, which will so greeue him, that he shall not be well able to stande, though he be in good liking: the remedie is this. Take a quart of good Ale (if it may be gotten) if not, take Beere, put therein Liuerwort, a good handful, Wormwood as much, a penniworth of Garlicke, halfe a penniworth of Madder, a penniworth of round Pepper, as much long Pepper, a penniworth of Cloues and Mace, a penniworth of Triacle, mingle them together, the hearbes being pounded, and giue the beast a drinke luke warme. The signes of the Blaine, are these: swelling about the face & throte, and somewhat in the bodie: if it be in the bodie, it swelleth much there, the onelye remedie is. Take and search him in the mouth, if you perceiue blisters vnder the rootes of the tong, or other place there abouts, then rub them to the bottome, and let them out, and rubbe the place with Salt: search him also for the bodie at the fundament, by the armes or hand of some young stripling: and when his arme is as farre as he can, let him turne his hand vpward, and seek for the blaines, or blisters, & breake them with his nailes, pulling them quite out: & that her annoint his hand well with Creame or Sope. There is a disease called the Sprenges, wherein he will smite his head backward to his belly, and stamp with his leggers: you must put your hand into his fundament, as far as you can without the bounds; then shall you finde blod, pull the blod quite out, and take a good handfull of Bay Salt, and put it in at his arse, as far as you can: if he haue this disease, he will swel in the body, and couet much to bourne. If he haue the staggers, he will looke very red about the eies, and cast his head backward: take the fourth part of an ounce of Pepper, beate it, and take halfe a pint of sharpe Vinegar, warmed blod warme, and powre it into his Noselthrils, and hold his head well vp: the wounde set him bode at the Nose. If your Bullocke turne round, and haue the Daffie, you shal take him by the head, and feele vpon his forehead, and you shall finde it with your thumbe: cut the skin ouerthwarte right in the place, and let no more then alone as it doth increase with a clout, and binde a cloth ouer his heade, and keepe it vntill

For the Liuer.

The Blaine.

The Sprenges.

The Staggers.

The Daffie.

Pissing of blood.

If your Oxen pisse blood, let them blood in the flanke and the entrie betweene the two ribbes, and the hoiues from water, then giue to euerie one a little dishfull of rennet crudes in a quart of milke, let them not drinke in foure houres after. There sometimes runneth a blood vpon the backe of a bullocke, which will make him draw his legges after him, and goe as if he were lame in the Chine: cut off a ioint, or two of his taile, and let him bleede till he begins to pant, knit his taile, or sears it: If he haue the Panteys he will pant much, and shake in the flanke: sometime shake some vrgeue him a little rennet, with Soote and Chamberley.

Panteys.

Taint.

If he loath of the taint, or stinging nettle, geue him vrine, salt, and treacle to drinke: if he be hidebound, scrape the leaues of Flos æneus, strain them, and geue the beast to drinke: if he haue a stroke in the eye, take the iuice of Smallege, Fenell, and the white of an Egge.

Hide-bound.

Gargyse.

The Gargyse, is a swelling beside the eye, vpon the bone, like a botch, or a byle: if your Bullockes haue it, cut of round about the place, of a penie or halfe penie, then cut all round about those places, that neere the lap of the skinne, which will keepe the bloud from his dripping: for if it come to his dripping it is incurable. Then take Chamberley, vrine, salte, and lay them to gether, and bathe the place where the skinne is cut of, and bathe it therewith morning and euening, till the swelling be gone, scraping of the skales, and other filth at euery dressing to the quicke, till the swelling be gone; not pulling it, as long as it will tarie, and runneth: when the swelling is cleane gone, take Verdiualle and Hony, boyled together blood warme, and annoint all the sore places, which will both heale it, and cause the heare to come again.

For all diseases.

There be certaine medicines beside, that are generally for all diseases, as thus, take the herbe Veruaine, a handfull of the tops and leaues, a handfull of Time, a handfull of Mathe, chop them small, and put them into a pottle of good Ale, let them lie till they be sowre, then strain them, and put into the decoction a penniworth of Liquorice, a penniworth of Annis seede, a penniworth of Graines, a penniworth of Liquorice, a penniworth of Fenell seede, a penniworth of Cumin seede, a penniworth of Turmerike, all beat small, and put into the liquor,

with

with a quarter of a pounde of Madder and whilst all these doe seeth, take a great bowle dish, and put therein a handfull of Bay salt, halfe a handfull of Garlicke, foure new laid Egges, shelles and all, two balls of Ointment, grinde all these thinges with a pestell in the Bowle: then take the licour aforesaide from the fire, till it be halfe colde, and put the warme licour into the Bowle, with the Garlicke, Salt, Egges, and Ointment, brewe it well together, and giue the beast to drinke blode warme, or a little more. Another of the same sort is this: Two peniworth of Comen, a peniworth of Grains, two peniworth of Anniseedes, a peniworth of Bay berries, a peniworth of Fenerricke, a peniworth of Tarmericke, one ball of Ointment, a peniworth of Tryacle, or rather for the Longes, three or foure spoonefulles of Madder, beate them all together, and put them in three quartes of drinke, set them on the fire, till they be blode warme, giue the beast no drinke in the morning before, nor tyll noone after in the Sommer, and in the Winter till night: or if you will, you may giue them this medecine following: take Flint sote, that is hard dried upon a post or rofe, and beate it into powder with Salt, then take running water, and seeth it, ranke Iuie, with the Soote and Salt, and when the Iuie is soft, take and wring out the iuyce, and straine al together through a linnen cloth, and giue it your cattell to drinke blod warme, in the Spring, and at the fall of the leafe. *Bubale* called of the common people Buffes, of *Plinie Bisonte*, are common in Italie, beyonde the *Apenin*: a wilde and sauage beast, that for their fiercenesse, are handled with ringes of iron in their noses, of colour blacke, their bodies large, and mightie, their legges well set, and knit verie strong, and in respect of their body, short, their hornes large cranied, and blacke, their haire small and short, their tailes little, they are but hole parts vsed for carriage, draught, and like vses, as the Ore. Of the milke of this beast are made Cheeses, that about Rome, and other places are greatly esteemed. *Columella* counts them to be strong meate, and heauie of digestion. Lo here is all that for my share I haue to say, touching my cattel: now se *HEDIO*, holde you the candell and other to like.

The Buffes.

But they muſt be well prouided for in winter: in any caſe, you muſt haue ſtore of paſture, and better it is, and more profitable to the Maſter, to keepe a fewe Sheepe well, then a great number with ſcarſitie of paſture. *Florentinus* is of that fancie, that he woulde your number ſhould rather be odde then euen, thinking that number more fortunate, for the healthineſſe, and long continuance of the cattell: but theſe are ſuperſtitious toyes, as are a great number of others imagined by the faithleſſe. Be ſure euery yeere once, to make your muſter, and ſupply the places of ſuch as are dead, or ſicke, with a newe and a ſound number, ſo that the Maſter be not deceiued with an olde vnprofitable flocke. The hardneſſe and cruelſie of the colde Winter, doth often times beguile the Shepheard, and deſtroieth many of his flocke: wherof (preſuming of their ſtrength in the end of the Sommer) he had made no ſupply, and therefore *Columella* is of oppinion, that the age for breede ought not to be leſſe then three yeeres, nor aboue eyght, both becauſe that neither of the ages is meete to be kept: and alſo that whatſoeuer commeth of an olde flocke, hath lightly a ſmack of his olde parentes imperfection, and proueth either to be barraine, or weake. The ſelfe ſame *Columella* would haue the Ewes to be put to the Ramme, after they had paſſed two yeere olde, & the Ramme to be of fiue yeere olde, and after ſeuen, to decay. In many places at this day, they ſuffer both the kindes to breede from two yeere olde, till nine: but before two yeeres, it is not good to put either the Ramme, or the Ewe to breede, although in moſt places they ſuffer the Ewes at a yeere old. The Ramme is put by his purpoſe, by the Wickers, or Buſhes, tied to the Ewes tayle, but more commodiouſly, by going in ſeuerall paſtures: howbeit, they are not commonly ſeuered, but ſuffered to go together. The Rammes that you would haue to ſerue your Ewes, muſt afore the blooſſoming, bee kept in good paſture, for two monethes, whereby they may the better be able to doe their buſineſſe: but in our country, we commonly ſuffer them to feede together. To encreaſe their luſtes, you ſhall giue them in their paſture, the blades of Onions, or Knotte Graſſe: they rather couet the olde Ewes, then the yong, becauſe

they be eallyer to be entreated, and the Rammes themſelues in age be the better. By knitting of the right ſtone, you ſhall haue Ewe Lambes, and of the left, Ramme Lambes: alſo their blooſming in the Northwind, getteth Ramme Lambes, and in a Southwind, Ewe Lambes. One Ramme (as *Didymus* affirmeth) ſuffiſeth for fiftie Ewes: when they haue all conceaued, the Rammes muſt againe be baniſhed, for dangering and harming the Ewes. During the time of their blooſming, they are to be watred in one place (as both *Varro* and *Plinie* affirme) becauſe the change of water both diſcoloureth the woll, & dangereth the Lambe. The policie of *Iacob* the patriarche, in procuring of partie coloured Lambes, is well enough knowen. The beſt time for blooſming, is from the ſetting of the Wearwarde, to the ſetting of the Egle: (as *Varro* and *Columella* haue written) which is (as *Plinie* interpretes it) from the third Ides of May, till the thirteene Kalendes of Auguſt, other thinke it good all the yeere long, many prefer the Winter Lambe before thoſe that fall in the ſpring, as a creature that of all others, beſt brooketh his winter byrth. The thunder, if the Ewes go alone, makes them caſt their Lambes, and therfore it is good to let them go with companie, for auoiding that perill: they goe with Lambe, 150. daies, or fiue monethes: ſuch as are afterwarde damned, are feeble and weake, and ſuch were of the old writers called *Cordi*: for the moſt part they bring but one Lambe a peece, yet oftentimes two, and if they be well feede, great a time. It hath been ſeene in Gelderland, that fiue Ewes haue had in one yeere, fiue and twentie Rankes: it may ſeeme peraduenture to many incredible, and yet no great matter, ſince they haue twiſe a yere moſt times two and ſometime fiue at a time. The ſheepheard muſt be as careful as a midwife in the yeaning time: for this poore creature (though ſhe be but a ſilly ſheepe) is as much to be pitied in her delinerie, as a Gentlewoman, and is oftentimes the more dangerouſly hereof and payned in her labour, in that ſhe is altogether without reaſon: and therefore it behoueth the ſheepheard to be skilfull in mediceming of his cattell, and to haue a midwife withal, as if neede require he may help his Ewe, what danger ſoeuer happen. The Lambe

vnlesse as he is fallen, must be sette on sute, and put to the liuinges vnder, and oftentimes his mouth held open, the milke must be milked in, that he may learne to sucke: but before you doe this, you must be sure to milke out the first milke called *Colostra*, whereof I will speake hereafter: for this, except some quantity be drawen out, doth hurt the Lambe: if the damme dy, you must suckle it with a horne: if the Lambe will not of him selfe sucke, he must be put to it, and his lippes nointed with sweete Butter, and Swines grease, and seasoned a little with sweete milke. As sone as they are lambed, they must be shutte vp together with their dambes, whereby both the dambe may cherish them, and they learne to know their dambes. Afterwarde, when they begin to ware wanton, they must be seuered with Hardelles: or (as *Varro* writeth) after tenne daies they must be tied to little stakes with some gentle stay, for hurting of their ioints, and waring leane with to much play. The weaker must be seuered from the stronger, for hurting of them. And in the morning betimes, before the flocke goe to pasture, and in the euening when they be full, the Lambes must be put to their dammes: and when they ware strong, they must be fed in the house, with Clouer, and sweete grasse, or else with branne, and Flowre. And when they haue gotten greater strength, they must be let out with their dammes about none, in some sunnie and warme close neere adioyning. In the meane time, you must not deale with milking of the Ewes, so shall you haue them to beare the more wooll, and hoing the more Lambes. When the Lambes are taken from their Dammes, good heede must be had, that they pine not away: and therefore they must be well cherished in their weaning time with good pasture, and well kept, both from colde, and extreame heat. Also after that they haue forgotte the vder, that they care not for their dames, then shall you let them feede with the flocke: howbeit in most places the Lambes are suffered to feede in the flocke together with their dammes, and to sucke till harueste time, till the dames themselues do weane them. *Varro* would haue you not to geld your Lambes vnder fiue months old, and that in a season neyther to hot, nor to colde: but experience teacheth vs, that the

best

beſt geldyng is vnder the damme when they be yongeſt: for in the elder (as in al other beaſts) it is dangerous. Thoſe that you wil kéepe for Rammes, you muſt take from ſuch Ewes as vſe to haue two at one time. The beſt paſture for ſhéepe, is the Graſſe that is turned vp with the Plowe, and groweth vpon fallowes: the nert is that, that groweth in drye Meddowes: the marſhy grounde is to bée refuſed, and that which groweth néere vnto Lakes, and Fennes: the plaine and the champion Fields and Downes, are beſt for the delicateſt and fineſt woolled Shéepe. To bée ſhorte, the ſhorter and fyner the Graſſe is, the méeter is it for ſhéepe: and yet is there no paſture ſo good, or ſo fine, but with continuall vſe your ſhéepe wyll bée wearie of, except the ſhepeheard remedie this fault with giuing of them ſalt, which (as a ſauce to their foode) hée muſt ſet readie in Sommer when they come from paſture, in little Troughes of Wode, by licking whereof they get them an appetite both to their meate, and their drinke. For where as ſhéepe ware ſoneſt fat with watring (as *Ariſtotle* affirmeth) you muſt in Sommer euery fifth day let them haue ſalt, a peck to euery hundred: ſo ſhall your ſhéepe bée allwayes healthy, ware fatte, and yelde you plentie of milke. Moreouer, againſt the Winter rotte, or hunger rotte, you muſt prouide to feede them at home in Cratches. They are beſt feede in the warmer countreys, with the leaues and broufings of Elme, and Aſhe, and the hate that is made after harueſt in the end of Sommer, becauſe it is ſofteſt, and therefore ſweeter than the other. With what héede and carefulneſſe this cattell is to be feede, *Virgil* declares, who wils a regard to bée had of the times, both of their watring, and feeding.

But in the noone time, and the heate of the day, you muſt driue them to the valleies, and ſhades (as he ſaith) a little after.

Whereſoeuer of Ioue the ancient Oken tree
His broade and mightie branches ſpreades, or where
In ſacred Groues of Holmes the ſhadowes be.

After when the heate is paſt, you muſt driue them again to the water, and ſo bring them againe to feede.

When ſunne is ſet, and euening ſtarre appeeres,
Then cooles the aire, and deawy Moone ſhe cheeres.

Varro affirmeth, that they deuyded their paſturing times in *Puglia*, after this maner. Firſt they put them out to paſture betimes in the morning, when as the deawy graſſe doth farre exceede in pleaſantneſſe, and ſweetenes: the Graſſe that being burnt with the heate of the Sunne, is euer dry. About noone againe, till it ware cooler, they are to be driuen vnder ſome colde or watry Rockes, and broade ſhadowed trées, and towarde the euening bée ſuffered to feed till Sunne ſet, alwaies hauing regarde, that in their driuing, their heads be from the ſunne: for no beaſt is ſo tender headed. Within a little after the ſetting of the Sunne, they muſt be driuen to water, and after ſuffered to féede againe, till it be darke: for then is the paſture ſweeteſt. This order is to be obſerued from ỳ riſing of the ſeuen ſtarres, and the leſſer dogge, till the latter *Æquinoctial*. The like doth *Columella*, and *Plinie* teach, that after the riſing of the Dogge, the flocke muſt afore noone bée driuen Weſtwarde, and féede wyth their face towarde the Weſt, and afternoone they muſt bée brought againe Eaſtwarde. The féeldes whence the corne is newly had off, is good to paſture them for two cauſes, both for that they are well fedde with the leauings of the ſheaues, and that with the trampling of the ſtrawe, and dounging, they make the ground richer againſt the next ſowing: but our countrey men doe not well like, that Sheepe ſhould féede vppon the eares of Wheate. The paſturing of them in the other ſeaſons, as Winter, and the Spring, differs in this point, that they put them not abroad, till the Sunne haue drawne vp the dewe, and hurtfull vapors of the grounde, and ſo féede them all the daye long, thinking it ſufficient to let them drinke at noone: but our

husbandes vse not to suffer their sheepe to feede abroade in the Sommer time, neither before the Sunne ryseth, nor after the setting, by reason of the dewe being more hurtfull in Sommer, then in Winter. In Winter, and the Spring time, they keepe them in a folde, til such time as the Sunne hath drayne vppe the Rimes and hoare frostes from the fieldes: for the frostie Gresse at this time of yere, stops their heades with rhume, and fils their bellies full of water: and therefore in the cold and wette seasons of the yere, it is enough to let them drinke once a daye. Moreouer the shepeheard, as also the keper of al cattel, must deale gently, and louingly with their flocke, and comforting, and cheering them with singing, and whistling: for the Arabians (as Aelianus writeth) doe finde, that this kind of cattel taketh great delight in musicke, and that it doth them as much good as their pasture. Beside, they must be well ware in the driuing of them, and ruling of them, that they guide them with their voice, and shaking of their staffe, not hurting, nor hurling any thing at them, nor that they be any time farce off from them, and that they neither lye nor sitte: for if they goe not forewarde, they must stande: for it is the shepeheardes office to stande alwaies as he goeth, that he may plain and safely discerne, that neither the slowe, nor the great bellied in louing time, nor the quicke, nor the lively whyle they remaine, be seuered from their fellowes: and least some theefe, as lyon beast, beguile the negligent shepeheard of his cattell. Of their pasturing, I thinke I haue spoken sufficiently, and therefore I meane now to shew you of their houses, or sheepecotes, where of there ought to be a speciall regard, that they be conueniently placed, not subiecte to windes, nor stormes, and that they rather stand toward the east, then toward the south. *Columella* woulde haue them built alowe, and rather long then hyed, that they may be warme in the winter, and that the straightnesse of the rome hurt not the young. And beside, he would haue them stande towarde the South: for this beast (though his garmentes bee warme) cannot away with cold breathes, neither yet with the great heate of the Sommer. I haue seene some sheepe houses so framed, as they haue had their gates towarde the South, and

Sheepecots.

towarde

towarde the East, that they might answere to the seasons of the yere. *Columella* woulde haue the House set towarde the South, and on the backeside a close Posterne, where they may safely take the aire. You must loke besides, that where they stande, the grounde bee made fayre and euen, some thing hanging, that it may bee cleane kept, and that the wine may be well vented away: for the wetnesse hereof doth not onely hurt and corrupt their feete, but also spoileth their coates, and maketh them rose, and ill fauoured. Let there bee no mosse there, but alwaies well strawed with any searne, or straw, that the Ewes that bee with yong, may lye the softer and cleaner. Let their beddes be very cleane, for the cleaner they lye, the better they feed: let them in any wyse be well feede: for a small number (as I said before) well fed, yelde more profite to their Master, then a great flocke barely kept. You must also haue seuerall partitions to keepe the weaker and the sicke, from the strong and wilde. And thus much of housed sheepe, that are euery day brought home, but in some places they are kept abroade, farre from either towne, or house. In Forestes, and vpon wilde fields and downes, in the which places the shepeheard carieth with him his Barrelles, and his pottes, and other necessaries, to folde his flocke withall. In the colder seasons, when as the winter pastures, and the summer pastures, are vnlikely certaine myles a sunder (as *Varro* saith) he woulde haue the flockes that haue wintred in *Apulia*, to be kept in Summer vpon the mountaines of *Sicyle*, and *Virgil* thus writeth of the shepeheardes of *Lybia*.

What should I here of Lybian shepeheards tell,
Or of their pastures writ, and dwellings poore:
That night and day on downes, and desarts dwell,
Where wanders full the flocke without the doore:
And on the ground doth dazzle the shepeheard heare,
While he remooues with him continually:
His house, and all his household goods doth beare,
His staffe, his dogge, and all his armory.

The

The like haue I my selfe seene in Swytcherland, and other places of Germany, where the shepheard, lying still abroade with his flocke, foldes his Sheepe in the night with Hardels, tying their dogges about them for watchmen: the shepheards him selfe in a little house vppon wheeles, sleepes hard by his charge. The Sheepe of Greece, *Asia*, and *Toranto*, and those which they call couered Sheepe, are commonly vsed to be kept in houses, rather then abroade, for the excellencie and finesse of their woll.

EVPHOR. What times do you appoint for the shearing of your Sheepe?

HEDIO. The times of shearing, are not in all places one, but varry, according to the disposition of the ayre, the cattell, and the countrey: the best way is to haue good regarde to the weather, as the Sheepe be not hurt by shearing in the colde, nor harmed by forbearing in the heate. In some places they haue two seasons in the yeere for shearing of their Sheepe: the first season for their shearing, is either with the beginning of May, or els with the ending of Aprill: the second season of their shearing, is about the beginning of September. Such as dare not shearе their Sheepe but once in the yeere, doe commonly appoint for their season, the tenth of the moneth of June, about which time also such as doe shearе twise a yeere, doe shearе their Lambes. Three daies before you shearе them, you must wash them well, and when they be full dry, you may shearе them: they doe not in all places shearе their Sheepe, but in some places (as *Plinie* saith) pull them The olde husbandes did account for the best woll, the woll of *Puglia*, and that which in Italy was called the Greeke fleese: the next in goodnesse they take to be the woll of Italy: in the third place they esteemed the *Milesian* fleese: the woll of *Pullia* is but short, and meete to be worne onely in riding clokes. The woll about *Toranto*, and *Canas*, is thought to be passing good: but the best at this day, is the woll of Englande. The finer your pasture is, the finer (as it is thought) you shall haue your woll. The woll of such Sheepe as are slayne by the Wolfe, and the garmentes made thereof (as *Aristotle* saith) putrifie is

Shearing of sheepe.

is apteſt to breede lice. If you happen in the ſhearing to clippe the ſkinne, you muſt forthwith annoint it with Tarre: when you haue ſhorne them, ſome thinke it good you annoint them with the lyce of ſodden Lupines, Lees of olde Wine, and the dregges of Oyle made in an oyntment, and after three dayes to waſh them (if it be neare you) in the ſea, or if the ſea be farre of, with raine water ſodden with ſalt. And being thus ordred, you ſhall not haue them to loſe their woll all the yeere, but to be healthy, and to carry a deepe and a fine fleece, and therefore *Virgil* biddes you,

Go plondge them oft in healthy ſtreames.

There be ſome againe, that would haue you to annoynt them three daies in the yeere, the daies being ſome after you haue waſhed them with Oyle, and Wine mingled together. Againſt Serpents, that many tymes lie hid under their Cribbes, you muſt burne Cedar, *Galbanum*, or womans heare, or Hartes horne: in the ende of Sommer is your time for drawing and ſeuering of them (as I told you before) when you muſt ſell your ſheepe, that through idlenes, they faile not in the Winter. Beſide, killing one of twoo of them, you muſt looke well vppon their Liuers, and if the Liuer be not ſounde (for hereby is foreſeene the daunger) then either ſell them, or fatte them, and kill them: for very hard is it to ſaue them, their Liuers being peaſhed. Infected ſheepe, are more ſubiect to ſcabbes and mangineſſe, then any other cattel, which commeth (as the Poet witneſſeth)

When coldeſt ſtormes do welte them neare,
And hoary froſtes on ground appeare.

Or if you waſhe not of the ſweate of the Sommer with ſalte water, or other wiſe. If ſo be they be ſhorne, your ſuffer them to be hurt with braubles or thornes: or if you put them into houſes, where either Horſes, Mules, or Aſſes haue ſtand, but ſpecially lacke of good feeding, whereof procedeth pouertie, and of pouertie, ſcabbes and mangineſſe. The ſheepe that is infected, is thus knowen: if he either ſcratch, ſtampe with his foote, or beate himſelf with his hornes, or rubbe him ſelf againſt a tree: which perceiuing him ſo to do, you ſhall take him, and

opening

opening his wolly, you shall finde the tong rolle, and as it were tyed: diuers other haue diuers remedies for this maladie, but such as are not at hande to be had. *Virgil* thinkes there is no better remedy,

Then in the fight to oppose sonny shepe
Or beare them off, or else the mad
Confounde out of Dodonis [illegible]

and many times the tabs of sheepe are healed by washing them with wine, and after annointing them with Bryniborne, and Oyle. The common shepheardes, when they perceiue a sheepe to fall a nibbing, they straight waies tosse him, and throwing the sheep, doe beare the place with Tarre: besides the seuerall other remedies more hacke to be come by, which are not for euery shepeheard, nor euery countrey to vse. And if the whole flocke bee infected, it doth many times so continue, as it shall be needfull to change houses, and (which in all other diseases whatsoeuer) both Countrey and aire. This one alonely medicine hande vnto all diseases prouided for the keeping in health of this cattell, to be most prefect and soueraine: take the berries of Juniper, beate them in small, and sprincle them with Oates, and Salte, mingle them all together, and giue it your sheepe, three or foure times in the weeke: for though they refuse to eate the Juniper berries of themselues; yet for the delire of the salte, and the oates, they will willy take them altogether. If they be lowse, or full of ticke, they vse to beate the rootes of Maple, and seething them in water, and opening the wooll with their fingers, they powre the licour, so as from the ridge of the backe, it runne all ouer the body. Others vse the roote of Wandbake, being well aware that they differ them not to taste it. If they haue the feuer, you must boore them betwixt the hare, betwixt the two Cleeues, which the Poet touchyth saying:

It easeth straight the flaming feuers pitie,
If in the foote you strike the shining yuorie.

Some let them blood vnder the eies, some behinde the eares. The Iaundice, a disease betwixt the Cleeues, is taken away with Lattse, Alome, Brimstone, and Vineger mingled together: or powder of Verdigrese put vpon it. The swelling betwixt the two Cleeues, must be cut with great warinesse, lest you hap to

cut

Maſter Fytzherbert for curing of Sheepe.

Northamptonſhyre, who was the firſt that attempted to write of Husbandrye in England, appointeth this cure: hys wordes be theſe. There becomme ſheepe that have a wormme within the fleſhe, that maketh them to halte, take that ſheepe and ſlyte betwixt the clees, and there you ſhall finde a little hole, as much as a great pinnes head, wherein groweth fine or five blacke heares, like unto the long heares of a horſe tayle: take a ſharpe pointed knife, and ſlitte the fleſhe aparte alon inche long about the hole, and as much beneath, and put your one hand in the hollowe of the foote, under the hinder clee, and ſet thy thumbe above, almoſt at the ſlit, and thruſt thy finger underneath forwarde, and with your other hande, take the black heares by the ende, or with thy fingers point, and pulling the heares a little and a little thruſt after the other hande with thy finger & thy thumbe, and there will come out a wormme, like a peece of fleſhe, more as bigge as a little finger: when it is out, put a little Tarre in the hole, and it will ſhortly mende. If they happen by the extreame heat of the Sunne to fall downe, and to forſake their meate, give them the juice of the wilde Beete, and cauſe them beſide to eate the Beetes. If they hardly draw their breath, ſlitte their eares, and let them bleede. If they be troubled with the cough, Almondes beaten with wine, and powred a prette quantie into their noſtrilles, remedieth them. A Sheepe, or Lambe, that hath the murreyne of the Longes, you ſhall helpe by thruſting through their eare, the roote of Setterwort: this ſickneſſe doth commonly ſpring of want and ſcarſitie of water, and therefore (in Sommer time ſpecially) you muſt ſuffer no kinde of cattel to want water. Their legges if they happen to be broken, are to be cured in like ſort as mens be, being wrapped firſt in Wooll, dipped in Oyle and Wine, and after warm ſplinted. The yong Lambes, and other Sheepe alſo while they goe abroade, are troubled with ſkabbes, and mangineſſe about their lippes, which they get by feading upon dewie graſſe, the remedie, is Hyſſope, and Salt, or eche a like

The murreine of the lungs.

Lambes.

like quantitie beaten together, and their mouthes, their gummes, and their lippes rubbed withal: the vlcerous places must be nointed with Vineger, Tarre, and Swines grease. If they chaunce to swell with eating of any wourme, or venemous grasse, you shall let them blood in the vaines about the lippes, and vnder the tayle, and after power into them chamberly. If they happen to swallow a Pricke, power into them strong and tarte Vineger warme, or Oyle. Against the murrin, or the rotte, I haue seene geuen them, certaine spoonefulles of Wine, and after a little Tarre: this medicine was vsed by Master John Franklin of Chert in Kent, who was in his life time a skilfull husband, and a good housekeeper. In like sorte haue I seene this medicine. Take for euery sore, one penniworth of Treacle, and likewise one little handfull of Hempseede, ground Iuie, Elder leaues, and Fetherfew, as much as a Walnutshell of Rue. And as much bay salt, put thereto. Chawke in and a little Soote, make it all like warme, and geue to euery one three spoonefulles good, and after euery one a little Tarre, before they goe out of hand. In some places they vse to take the dried flowers of Wildmuscard, and mingling them with salte, they geue them to their Sheepe, as a generall medicine against all diseases. This medicine is commended by *Hieronimus Tragus*, both for altering of any grefe, and driuing away euerye kinde of diseases from cattell.

Eating woormes, or venemous grasse.

Master Iohn Franklin.

EHTHOR. God *HEDIO* forgeat not to speake some thing of your Goates.

HEDIO. Goates haue many thinges common with Sheep, for they goe to Bucke at one time, and goe as long with yong as the Sheepe doe: they yelde commoditie with their flesh, their Milk, their Cheese, there skins, and their heare: the heare is profitable to make ropes of, and packes, and diuers like instrumentes belonging to sea men, by reason that it neither rottes with moisture, nor is easely burnt with fire. *Varro* maketh mention of two sortes of them, a hoary sort, and a russet one. Such as haue Wethers, or Martes, vnder their Chinnes, are taken to be most fruitfull: their Vdders would be great, their Milke thicke, and the quantitie much.

Goates.

The he Goate ſhould be better headed, and longer, his Beeke ſhort, his Throate doll diuer, his Legges fleſhy, his Eares great and hanging: it is thought better to bye the whole flocke together, then to bye them ſeuerally. At the Chinne of euery one of them hangeth a long beard, which *Plinie* calleth *Arumen*, by which, if any man draw one of them out of the flocke, the whole flocke (as amazed) ſtand gazing vppon him. The he Goate, becauſe of his beard, and (as *Alianus* ſaith) by a certaine inſtinct of nature, preferring the male before the female, goeth alwaies before his woman. The bargayning for this cattell, is not after the manner of bargayning for Sheepe: for no wiſe man will promiſe that they be free from ſickneſſe, being as they be, neuer without the Agewe: but he aſſures them that they be well to day, and can drinke. One thing is to be wondred at in this beaſt, that he draweth not his breathe as all other beaſtes do at his noſe, but at his eares. The beſt kindes of them, are thoſe that bring forth twiſe a yeere, and ſuch you muſt ſeeke for your breede. The Goate is able to engender at ſeuen moneths olde, being euen as lecherous as a Goate: for while he is yet ſucking, he will be vppon the backe of his dam: and therefore he wareth feeble and barbike, before he be ſixe yeeres olde, being now ſoked and conſumed with his exceſſiue luſtineſſe of his youth: and therefore after he come to be fiue yeere olde, he is no longer to ſerue your turne for breede. The time when you ſhall ſuffer them to go to ruffe, is in *Autume*, a little before December, that at the comming of the ſpring, and bloſſoming of the trees, the young may be brought forth. The Goate goeth with yong (as I ſaide) fiue moneths, as the Sheepe doth: the bringes forth commonly two, and ſometime ſixe (as *Plinie* witneſſeth.) Such as beare twiſe, you muſt kepe for your flocke, for the reuiuing thereof, and the encreaſe. As touching their kidding, you muſt in the ende of *Autume* ſeuer your he Goates. The yong Goates of a yeere olde, and two yeeres, being fiue to kiddes: but (as *Columella* ſaith) they are not to be ſuffered to bring them forth, except they be three yeres olde: and therefore you muſt away with the yong, that the Goates of the firſt yeere may breede:

and

and suffer the Kidde of a three yere drauue. I tolde no lon-
ger then it is meete to be solde. When the Kiddes are brought
forth, they must bee brought vp in like sorte as I tolde you of
the Lambes: sauing that the wantonnesse of the Kidde is more
to be restrained and heedelier to be kept in, and must be fedd be-
side their milke, with young bowes. *Plinie* affirmeth, that they
be scarse good for breede at three yere olde, but if they passe
foure, they be starke nought, and that they begin at seuen mo-
nethes, euen while they be vnder the mothers breast. The first
riding prospereth not, the second is somewhat to the purpose,
the third spreadth, she bringes forth, till she be eyght yeares old,
and therefore the she Goates, when they be aboue eyght yeares,
is not to be kept: for then she becometh barraine. Those which
want hornes (as in the male kinds) of all others be the best:
for the horned, by reason of their weapons, are hurtfull and vn-
ruely. Besides, the female of such as lacke hornes, doe giue al-
waies greater plentie of milke: but *Columella* (as he commen-
deth the Pollardes in a temperate and milde Countrey) so in a
boisterous and a stormie Region, hee would haue them horned.
Such as haue Hornes, doe shewe their age by the circles of
their hornes: it is thought, that they see as well by night, as by
day, and that they alwaies lay their faces turned one from the
other, and in that order also feede. Cold (as it is said) is verie
hurtfull to this kinde of Cattell, specially to those that be with
young, as likewise the extreame heate. The witte of this beast
Nunnius reporteth, he once had experience of, whereas a couple
of them chaunced to meete vppon a verie long and narrowe
Bridge, and the straightnesse would not suffer them to turne,
and to goe backwarde blindfolde in such a straight, consider-
ing the swiftnesse of the streame vnder them, was more vn-
possible, the one of their lying downe, the other passed ouer
his body. *Varro* doth counsaile, feeding little flocks kept seuerall,
rather then great flockes together, being the occasion of
Gaberius, because a great flocke is soner subiect to the murr-
rine, thinking fifty to be enough for one flocke. *Columella*
also affirmeth, that there ought not to goe aboue one hundred
of them together, whereas of Sheepe the like tooth a thousand

in one flocke. The biting or byting of them, is poiſon to all kinde of Cattell; and therefore were they in olde time ſacrificed to *Bacchus*, becauſe they were ſo hurtfull to Vines. Their ſtables *Columella* would haue to ſtand vpon a ſtony ground, or els to be paued, for this beaſt needeth nothing vnder him but a ſtrawe bowen: when he lieth abroad, the ſhepheard muſt often ſweepe and make cleane their howles, not ſuffering any dounge, or moiſture, to remaine in them, that may be hurtfull to the flocke: for as I haue before ſayd, they are ſubiect vnto Feuers, and much ſubiect to the peſtilence. And whereas other cattell, when they haue the Murraine among them, as ſoone as they be infected, beginne to languiſhe, and pine away: onely theſe Goates as ſoone as they be taken, though they be neuer ſo ſtarke to looke vpon, ſuddenly fall downe together, and die as quicke as Haile: which diſeaſe doth chiefely happen, by too much rankeneſſe of paſture. And therefore as ſoone as you perceiue one or two of them fall downe, let the howſe ſtande open both as much ſpace as you may, and ſuffer them not to feede all the day, but ſhutte them vp the foure middle houres of the day. If they be diſeaſed with any other ſickneſſe, you muſt giue them the Rootes of Kiches, and of the great white Lyllie, trauayling them with iron pincels, and dropped with raine water let them drinke it: and if it be this malecie heale them not, your beſt will bee to ſell them, or to kill them, and powder them: and when you vſe eyther, bring them not home to hatkely, till the diſpoſition of the aire be altered. If they fall ſeuerally ſick, cure them in ſuch ſort as you doe your ſheepe. *Florentinus* ſaith, if you ſtampe with Nettles the Clyuers of the Sea Crab, and giue them to drinke a ſpoonefull apeece, it preſeruerh both ſheepe and Goates from all murraine and peſtilence. If their bellies be ſwelled with water, which the Grecians call ὑδρωπιν, the Dropſie, if the ſhinne bee launced a little vnder the ſhoulder, it letteth out the hurtfull matter, and you may heale the ſore with Tarre.

SYPHOR. You haue for your part very well ſatisfied vs, touching the good ordering of your Cattell: there remaines yet one thing for you, which we had forgate to ſpeake of, and

that

that is the ordering of Milke, now chiefly finde out the name.

HEDIO. Seeing that of this Cattell whereof I haue entreated, the profit of the Milk is not small, it is no great reason we shoulde ouerpasse the ordering of the same: for Milke (as *Varro* saith) of all liquid thinges wherewith man feede, is the greatest nourisher. Milke differeth in goodnesse according to the nature of the bodies that giue it: as the milke of Women, of Kine, Sheepe, Goates, Asses, Mares, and Camuels: the greatest nourisher is Womans Milke, the rarest Goates Milke, whereby the Poets faine, that their god *Iupiter* himselfe was nursed with Goates Milke: the sweetest next to Womans milke, is the Camuels milke: the holesomest, is Asses milke: the Asse as soone as she is with Colt, giueth milke: the Colte, neuer till she haue Calued, most vnfortable to the stomacke, is Goates milke, because her rather feedeth on Bushes and leaues, than vpon grasse. Colues milke is most medicinable, and most of all loseth the belly. Sheepes Milke is sweeter, and nourisheth more, but is not so good for the stomacke, by reason it is fatter and grosser. All milke that is milked in Springtime, is nutritiue then the milke of Summer, as likewise is the milke of young Cattell: it is holesome being sodden, specially with the Pebbles of the Sea. The Sheepe about *Pontus*, nere to the Riuer *Alface*, haue (as *Plinie* saith) blacke Milke. All milke generally (as *Dioscorides* writeth) is of good nourishment, but filleth the stomacke and the belly with winde: that which is milked in the Spring, is thinner, but loseth the belly most. The difference of Milke, is taken (as *Varro* saith) of the pastures, the nature of the cattell, and the milking. Of the Pasture, when the Cattell is fedde with Barly, Straw, and all other hard and dry meates, and this greatly nourisheth. For purging of the Belly, the Gentle Pastures, specially where the cattell fede of purging hearbes, as *Gardener* in his booke *de plantis* teacheth, that if you will purge Melancholy, you must fede your milch Goate, or Asse, with *Polipod*, and for all other humours *Sene*, for the Dropsie with *Spurge*, or *Agaricke*, for cleansing of the blood, with Fumitorie, or Hoppes:

Milke.

Blacke milke.

Error in the vnderstanding of Dioscorides.

and if you will but vnctyfie the belly with Mercury, or Apollowes: so farre *Cordanus*. Our countreymen doe chiefely commende for milke, the pastures where groweth Sperry, and clarygrasse, and that is all couered with yellowe flowres. For the Cattell, the difference is betwixt the sicke and the healthy, the young, and the olde: and for the ayrishing, that is best, that is not long kept after the milking, nor that is milked immediately vpon the Caluing, a grosse vnwholsome kinde of Milke. To trie whether milke be mingled or not, you shall take a sharpe knife, and putting it into the milke, let it droppe from thence vpon your nayle, and if the drop runne abroade, it is a signe there is water in it: if it keepe together, it sheweth it to be pure and good. Of Milke is made Butter, whose vse (though it bee chiefely at this day among the Flemminges) is yet a good and profitable foode in other countreys, and much vsed of our olde Fathers, yea euen of the very Patriarches as the Scriptures testifieth, the commoditie thereof, besides many others, is the allaying of hunger, and the preseruing of strength: it is made in this sort. The milke, allone as it is milked, is put out of the Pailes into Kettles, or Pannes, the best are earthen Pannes, and shall rather bellie then deepe: this done, the cream, or the third day, the creame that swims aloft, is skelled off, and put into a vessell rather deepe then big, round and Cilinder fashion: although in some places they haue other kinde of Charnes low and flat, wherein with often beating and mouing vp and downe, they so shake the milke, as they seuer the thinnest parte of from the thicke, which at the first gather together in little crumbles, and after with the continuance of the violent moouing, commonly to a lumpe or wedge, or cake: thus it is taken out, and either eaten freshe, or barrelled with salt. The Butter milke that remaineth of the Butter, is either kept for the family, or giuen to Calues and Hogges, as a delitie foode.

Butter.

Cheese is also made of the Milke of Cattell, the Milke being powred into a vessell of earth, putting into it a little Rennet, the quantitie of a Walnutte, in a great vessel of Milke, whereby it runneth into Curde. *Plinie* but better like the Rennet of the Leuret, or the Hare, then the Calues: howbeit, we com-

Cheese.

monly

mardy, ble the Calues Kennet rather then any other meanes onely with heate, warming it in Tinne vessels, and after dipping these vessels in colde Water, which is the swiftest and cleanliest manner: others put in the seede of wilde Saffron, and being so turned, the Whey doth greatly pourge flegme: others against ble the milke of the Figge tree and then doth the Whay pourge both choler and flegme: some turn it with Oxymell, or sirope of Liniger, which is of all other waies the holsomest: some besides, ble the little skinne of Birdes Guitards, and others, the stomakes of wilde Cattles, or Goates sheeke. The newer and better the Milke is, the better will be the Cheese, for made of two seats of milke, or milke that is to neare fleeted, it soone soureth, and maketh hard and naught, and is not to endure any while. Againe, being made of fatt and olde Milke, it will very long endure, and long continueth in his fatnesse and softnesse: about sixe or eight houres after you have put in your Kennet, the Milke runneth to a Curd, which is straight waies put into Formes, or Chessefattes, and pressed: or if they be but small, they are onely pressed with the hand. If they be of any quantitie, they haue greate weight vppon them, if in very needefull you presse and the Whey with as much speede as you can, and to sever it from the Curd, and not to let it lie slowly drayning of it selfe. Those that make great Cheeses, haue mouldes for the purpose, and Weighes and Presses answerable. After this, they take them out of the Presse, and lay them vpon Hardelles, or faire smooth Tables, in a shadowy and a colde place, and close from all windes, sprinkling them all ouer with Salt, that they may sweate out all their sowrenesse, laying them so, as they touch not one the other. When they be now well hardned and thickned, they are taken vp, and pressed againe with greater weightes, and rubbed ouer with parched Salte, and after laide in presse againe, wherby it is thought they will neither haue eyes, nor be ouer drie: which faults happeneth to come when they be either not well pressed, or too much salted. Some vse to put into the bottome of their Pailes, the greate kernelles of the Pine apple, and milking into them, doe finde it soone turne. You may also make your Cheese to relish of

what fauced you will, as Pepper or any other Spice: but *Columella* counteth that for the best Cheese, that hath least mixture in it. The strongest Cheese, and hardest of digestion, are those that are made of Buffes Milke: the next are such as are made of the Milke of Cowes, both the mildest, and lightest of digestion, are those that are made of Goates Milke: the Cheese that is made of mares Milke, hath the same quantitie that the Buffe Cheese is. There is Cheese also made of Cammels Milke, and of Asse Milke: the Cheeses that are made of Buffes Milke, are at Rome in great estimation of all other cattell. Such as are touched with about and beyond, and have more then foure papps, you can make no Cheese of their Milke, for it will never curd. In our dates, the best Cheeses are counted the Parmasines, made about the Riuer of *Po*, esteemed for their greatnesse, and daintinesse; of which you shall haue brought into other countreys that lye about the Leuer plaine. Next are commended the Holland Cheese, the Cheese of Normandy, and the English Cheese. In England, the best Cheese is the Cheshyre, and the Worcestershyre, then the Banbury Cheese, next the Suffolke, and the Essex Cheese, and the very worst the Kentish Cheese. The places to haue the best Cheese in mine, appeareth by this olde englishe *Distichon*, better smiled, then sawed:

Banbury, Langtony, Suffolke good Cheese, Essex go thou by,
Shropshyre, cum Cheshyre, Hertford may well with the best pere.

Of the inconmoditie of Essex Cheese, our Englishe Martiall John Heywood, thus merily writeth:

I neuer saw Banbury Cheese thicke enough,
But I haue seene Essex Cheese quicke enough.

Cheese they say will best endure, and is longest preserued, if you keepe them in heapes of Pulse, or Wheate, and if you keepe your Rennet in the iuice of Wyeth, you shall be sure to haue neither Mite nor Creeper in your cheese. The Cheese that is soft and newe, doth more nourish then the dry, and be more comfortable to the stomack, not long in digesting: the old is contrary, answering to the poudered, the Cheese gode but the nexte

Old

Old Cheese will be couts me to in taste, if you lay them in Brine, Vineger, or in Wine: if through age it be hard and bitter, let it be rubbed ouer with meale of mouldy barley, & then dipt in water, and after, the outer rinde scraped of. We haue oft times proued, that hard Cheese wrapped in Clouts wet in Vineger, or wine, and oftentimes sprinckled with wine, and so laide vp, returne to a softnesse, and a very pleasant taste. Some lay it in Leauen, couering it riole therewith, and thereby make it soft. It is reported, that *Zoroastes* lined twentie yeeres in wildernesse with Cheese so ordered, as it neuer waxed olde.

EVPHOR. Of the Whay that commeth frour the Cheese, being soode with a soft fire, till the fatnesse of the Cheese swim aloft, are made Wellcurds. Well-curds.

HEDIO. You were wont to loue them well.

EVMEVS. I doe indeede, speciallie if there be good store of newe milke put into the Whay. The olde writers doe teach the making of a kind of white meate, not much vnlike to Wellcurds, which they called *Melcan*, & made it in this sort. They put into a newe earthen vessell Vineger, and suffred it to boile softly vpon the fire, til the vessel had drunke vp the vineger, and into that vessel they powred in milke, and set it where it might stande stedfast, whereby they had within a while their desire. But me thinketh I haue sayd my part ouer enough, it commeth now to your turne *EVMEVS* to go forward with the rest. Melcan.

EVMEVS. That the keeping of Swine belongeth to Husbandrie, doth euidently appeare by the saying of the ancient husbandes, counting him a slothfull and vnthriftie husband, that hath his Bacon rather from the Butcher, then from his owne Roofe: for there ariseth good profite many times to vs of our owne Swine, as doth to you that be keepers of greater cattell of your flockes: for if Bacon be deare, the chiefest supporter of the Husbandmans kitchin is wanting. And whereas Swines flesh seemeth abhominable to the Iewes, I beleeue verily they neuer tasted the Gammons of Krauine, so highly commended by *Varro*, *Strabo*, *Athenæus*, and other learned writers: which I suppose were none other but the fatnesses of Westphaly, so greatly esteemed at this day, not onely Swyne.

in Germanie, but in Asie, and that they were called by the name of Celtick Gaules, because the old writers, specially the Greekes; called all the Countreys on this side the Alpes, both French and Dutch, by the name of Celtyck. Surely there is no beast beside, that makes more daintie dishes, there is in him neere fifty different tastes, where euerie other beast hath but one: and hereof came at first the sharpe law of the Censors, forbidding it to be vsed at suppers, the vdders, the stones, the trypes, and the forepart of the heads of Swine, (as *Plinie* witnesseth.) And most apparant is it, that not onely the Frenche, and the Dutche in ouerdaies, but also the Italians, and the Greekes, nourished great heardes of Swyne. Among the Greekes, *Homer* maketh mention of one of my name, that had twelue hoglies, euerie sie containing fiftie Porklinges, and *Polybius* writeth, of more then a thousand to be vsed at a time among the auncient Italians, Tuskans, and French, *Varro* accounteth a hundred but a small heard. Who so will nourish Hogges, must haue regard both to the nature, and the age: *Varro* adeth beside, the nature to the kinde, and the countrey. And because the young doe commonly resemble their parents, he would haue you chuse such as are faire, and large bodied, and which make most to the matter, as fruitfull as may be: which *Varro* both chiefly commendeth those that be of one colour; their brissels would be thicke, hard, and blacke, if it be in a cold countrey: if in a temperate, you may nourish the smoth. Their proportion would be long, large sided and bellied, wide buttocked, short legged, and foted, big necked, and well brawned, short grained, and turning vpward, his taile wrinckled. The kinde is most commended, that bringeth many Pigges, the country that beareth large and great: the best age for the Boare, is a yere old, though at halfe a yere old they are able to serue a Sowe: one Boare is enough for tenne Sowes and more. The Sowe is sufficient to bring Pigges at a yere olde, and so for seuen yeres after, the fruitfuller she is, the sooner she beareth olde: at the first farrowing, you shall easily see what number shee will bring forth: for shee will not much differ in the other. The best kinde of Sowes haue twelue puppes, the

common ſorte tenne, or not ſo many. Euery Pigge doth knowe his owne Pappe that he was borne to, and ſucketh onely that and none other: if you take away the Pigge, the pappe drieth, as both *Plinie*, and experience ſheweth. They were wont to be bought and bargained for in this ſorte. Doe you warrant that theſe Swine are ſound, that I ſhall well enioie them, that you will anſwere the faultes, and that they be of a healthy breede? A wet moiſt ground, is meeteſt for this cattell, for he delighteth not in water, but in durt and myre, ſo much (as *Varro* writeth) that the Wolfe, as ſone as he hath caught a Sowe, draggeth her to the water, becauſe his teeth are not able to abide the heat of her fleſh. And although this beaſt wil away with any graſſe, (for he feedeth both in mountaines, champion, and marſh) yet his cheefe delight is in the Woods that is full of Quagmires, where there groweth ſtore of Oke, Corke, Beech, Maſtholme, wild Olives, wild Dates, Hazelnuttes, Crabbe trees, Plome trees, and Chery trees: for theſe doe fruite diuers times, and feede the heards, almoſt all the whole yere. Where there wanteth Woods, they muſt bee fedde from the grounde, wherin a Marſh is to be preferred before a dry ground, that they may mouſell in the Marſh, digge vp wormes, wallow in the myre, and tumble in the puddels of water, which in ſommer is moſt needefull. They alſo hunt after rootes, ſpecially Fearne rootes, and the rootes of Bulrushes, Rushes, and Sedges, beſide good Graſſe well feedeth a Swine, and Orchardes of Cheryes, Plomes, Apples, and Nuttes. And notwithſtanding all this the Barne, for you muſt feede them often by hande, when meat failes abroade, and therfore you muſt preſerue ſtore of Acornes, in Celliornes, in the water, or dried vppon ſmokie Flores, alſo Beanes, Peaſe, and Tares muſt bee giuen them, and not ſo much as Barly ſpared: for this kinde of feeding doth make them faire, and not onely fattes them, but giueth the flesh a pleaſant taſte. When they are yet young and ſucke, both they, and their dammes muſt be well fedde, they muſt be put to feede early in the morning afore the heate of the Sun, and after kept in Shadowy places, where there is good ſtore of Water. Afore they go to paſture, they muſt bee medecined, leaſt the Graſſe

ſkarre

skarre them to much, by which they will be greatly weakned. In Winter they must not be put abroad, till the frost be off the ground, and the yse thawed. And though the Swine wil runne at the knowen voice of their Swineheard, yet *Varro* will haue them be brought both to pasture, & homeward, with the sounde of a horne: their meate must bee giuen them scattered thin, so shall both lesse suffice, and the greater shall not harm the smaller: assone as they heare the horne, though they be neuer so farre of in the woods, they come running with all haste. *Polybius* telleth, that the Italians vse not to follow their heards, as the Greekes and other doe, but goyng a pretie waye before them, they blowe their hornes, their heards being acquainted with the blast, doe follow them in great order. They doe so wel knowe and obey the call of the Swineharde, if we may beleeue *Alianus*, that when certaine Rouers landing vpon the coast of Tuskan, and taking great numbers of them out of their sties, caried them aboorde, the theeues hauing weied vp their anker, and being vnder saile, the Swine vppon the hearing of theyr keepers voice, suddenly ran to the one side of the ship, and ouerturned her, whereby (the Pirates drowned) the Swine came safe to land to their maisters. As I haue here told you of the conditions of the Boare and the Sowe, and of their keeping, so wil I nowe shewe you the manner of their breeding. The breeming time is reckoned to be from Winter, till the twelfth of March, so shall you haue them to farrow in Summer: for the Sowe going foure monethes with pigge, farroweth in the fifth. Shee is with pigge at the first breeming, but they vse to let them go often to Boare, because they some miscarrie. And if you wil haue two farrowes in one yeare, you must put your Sowe to Boare in Februarie, or Januarie, that she may farrowe by Aprill, or May, when as there is good pasture abroade, and milke is in his cheefe strength: and when they be weaned, they may well feede vppon strawe, and grottens, and after the Sowe may farrowe againe in the ende of *Autumne*: for *Varro* saith, her farrowing times are so diuided for the nonce, as she may farrowe twise a yeare, while she hath foure monethes to beare them, and two to feede them. As soone as they bee with pigge, you must

A woonderfull knowledg in Swyne.

keepe

keepe the Woze from them: foz with his vnrulineſſe, he maketh them to caſt. Yong Swine foz breede, muſt not bee leſſe then a yeere olde, as *Varro* would haue it: howbeit they begin at eight moneths, & continue ſeuen yeeres. The Boare beginneth at eight moneths, oz ſixe, & continueth well foure yeeres, and after at three oz foure yeeres olde you may geld them, and fatte them. Some would not haue you keepe vp aboue eight, others not aboue ſixe: not that the Sowe is able to keepe no moze, but that ſhe that keepeth moze, ſome faileth. *Varro* repozteth, that the Sowe of *Æneas Laulinius*, farrowed at one time thirtie white Pigges: but it is monſtrous when ſhe farroweth moze then ſhe hath Pappes. Euery Sowe muſt haue her ſtie by her ſelfe when ſhe hath farrowed, and not ſuffered to goe with the whole heard, as other cattell are, but little Cotes to be made foz them, wherein they may be kept either farrowing, oz with farrowe: foz Swine, if they lie together in any number, being commonly ill mannered, doe lie one vpon the other, wherby they hurt ſuch as are with pigge. And therefoze you muſt haue ſeuerall ſties where they may farrowe, and made hie, that the Sowe can not get out: foz couered they muſt not bee by no meanes, that the Swineheard may loke that the Sowe ouerlay none of them, and to ſee what they want, that hee may make it cleane, and as oft as he cleanſeth it, he muſt ſtrawe ſand, oz ſuch like, to dzy vp the moiſture: foz though ſhe be but a ſwinith creature, yet loueth ſhe to haue her Chamber cleane. When ſhe hath farrowed, ſhe requireth greater quantity of meate, whereby ſhe may giue the moze milke, ſpecially Barley ſteeped in water, oz ground & tempered with water. And if you haue not good ſtoze of meate, your beſt is to ſell the pigges: ſo ſhall the damme being deliuered of her burden, bee ſooner with farrowe againe. Such as are farrowed in winter, are commonly poze & wretched, both becauſe of the cold, and that their dammes do not like them foz wanting of milke, and biting their paps. If the Sowe eate her piggs, it is no wonder, foz ſwine of al other beaſtes, can worſt away with hunger, which when it prouoketh, they eate not onely their owne, but yong children, which not long ſince happened, in Sullet, to the pitiful diſcomfort of the parent.

A childe eaten by a Sowe.

They

They suffer not the Sowe to go abroade in tenne daies after her farrowing, except it be to drinke: after, they suffer her to go about the house, that she may the better giue milke. When the pigges ware gret, they desire to go abroad with their dammes, at which time they are fedde by them selues aparte, to the ende they may the soner forgeat their Mother: which they will doe in tenne daies. It behoueth the swineheard to be carefull and diligent about his charge, that he haue in memory euerie one of them, both olde and yong, that he consider euerie farrow, and shutte vp those that be great with Pigge, that they may farrowe in their Stie. He must haue special regard of eugrie yong Pigge, that euery one of them be brought vp vnder their owne damme: for if they gett out of the sty, they straightwaies mingle one company with another, whereby the poore Sowe is forced to giue milke many times, to more Pigges then her owne: and therefore the swinherd must shut vp euerie damme with her owne Pigges. And if his memorie serue not to knowe them all, let him pitch euery Sowe and her Pigs with a seuerall marke: for in a greate number it shall behoue him so to do, for confounding his memory. The olde husbands obserued allwaies two times in the yere for cutting of them, the spring, and the fall of the leafe, whereby they auoided the danger, both of the heat and colde. The Boze Pigges they cutte when they were sire monethes olde, and againe at foure yere olde, to make them fat, making two woundes, and taking out the stone of euery side: or els when you haue taken out one stone, you must thrust your knife againe into the wounde, and cutting asunder the skinne betwixt both the stones, drawe out with your fingers the other, so shall you make but one skarre: but this kind of cutting is somewhat more dangerous. The Sowes are spaide by burning the Matrixe with an iron, & the skarre healed vp, whereby they will both haue no more Pigs, and be the fatter. *Aristotle*, and folowing him *Plinie*, would haue the Sowe after two daies fasting, hanged vp by the fore Legs, and so cut, whereby she wil be the soner fat: but I iudg it better to cut them when they be yong, at two monethes olde, or younger, for so are they in least ieopardy. After they be cut, you must

keepe

keepe them fiue dayes, and giue them but little meate: the wound must be anointed with fresh butter, and salued vp. As the swifling and turning vp of the eyes, is a signe of a sounde Hogge, so hethere certaine and assured signes of their sickenesse: for if you perceiue all their bristles stand vpright, and sunke that their roots haue blouds on them, it shewes the soundnesse is not well. Besides if your Hogges be sick, you shall perceiue with a heauy thing pang their heads a litle aside, and suddenly as they runne thorow the stye, and being taken with a running giddinesse, they fall downe: and then for your remedie you must make a hole in which side they hang their heads, that you may cut the eare of the contrary side to let them bleed: and vnder the tuske beside, two inches from the Kampe, you shall strike the vaine, which there is easily to be seene, for the bigneste of it: you must first beate it with a little sticke, and after it swelleth with the beating, open it with your knife, and hauing bled sufficiently, binde it vp with the rinde of Willow, or Elme: after this keepe them vp in the house a day or two, and giue them warme water, with a good quantitie of Barly flower. If the *Quinsey* or *Vuula*, (in which disease this beast is wonderous subiect) chaunce to take them, *Dyllenius* would haue you let them bleed behinde about the shoulders, others vnder their tong, some against cure them with setterwort. If the kernels swell in the throate, you must let them bleed vnder the tong, and when they haue bleede, rubbe their mouths within with salt, finely beaten, and wheat flower. *Democritus* would haue you giue rosemary seede, three pounds weight of the beaten Roote of Dittander. If they vomite and loth their meate, it is good to giue them before they goe a broade, the shauings of Ivory, with fryed salt, and grounde Beanes: Swine while they feede abroade, by reason of their great deuouring (for it is an insatiable beast) be wonderously subiect with the abundance of the Splen: for remedie whereof, you shall giue them water as oft as they drinke, in Troughes made of *Tamaryce*, the iuice of which tunde, is verie holesome for them. *Democrites* teacheth to giue vnto Hoggs that haue the Splen, the water wherein the Coles of Heath hath beene quenched. This beast hath sometime a sickenes wherein he pines away,

Of diseases in Swine, & the cure.

The Quinsey.

nday, and he falleth by the eares: and if you bring him to the
fielde, he suddenly falleth downe, and lieth as though he were a dead
sleepe: which as soone as you perceiue, you shall shutte vp the
hole herde in some house, and make them to fast one day, both
from water and meate the next day, the Rote of Hellebor called
number finelyped and washed with water, is giuen them to
drinke: which as soone as they haue taken, they fall a vomit-
ting, and so purge themselues. When they haue thus expelled
their choler, you shall giue them hard Beanes, boyled with
Wine. An excellent medicine against all pestilence of Swine,
both *Hieronimus* and *Thagus* teach, which is not vnknowen to them
inferred, to giue them the Berries of *Eliphi*, called Olyues
boiled in Wine, whereby they shall purge what euer is euill
from them, and most of all choler, wherewith Swine are most
troubled: the same *Hieronimus* (as I haue before rehearsed) healeth the
Horse (though it be full past any recouerie) as touched with
them. If they be sicke, and suddenly fall downe as dead, that
you knowe not, to put vnder his taile a peece of an Vnions
rote, whereupon you shall see him incontinently raise vp his
eares and do some warde whatsoeuer is in his bodie, and presently
mende: this herbe saith (and truely I dare obtaine him) that he
maketh with a haire of his owne. Beasts in Summer, inflicted
thirst in Summer, is not all one danger vnto all kinde of cat-
tell, to this beast it is most hurtful, and therefore you must not
water them as you doe sheepe and Goates, but twice or thrise a
day: but if you can, you must keepe them by the water side, that
they may go thereto at pleasure: for the Swine is not content
with drinking, but he must often wals and plunge his filthy
panch in the water, neither delighteth he in any thing so much,
as to wallow in the dart. And if you haue no such places neere,
you must drawe some water from the Well, and giue it them in
Troughes abundantly: for except they drinke their fill, they
will fall sicke of the Loinges, which disease is cured (as Colu-
mella writeth) by thrusting the Rote of Pellitorie of the wall through
their eares: *Plinie* affirmeth the Mouse to be a present remedie
for the sicknesse of Swine. Some say, that if a Swine lose one
of her eies, she dieth soone after: otherwise she liueth fifteene

yeares.

greenes. There is a kinde all diſeaſe ſtanding (though at the full) they be healthy and fatte, (wherein their fleſh is all infected) with little graines as bigge as Peaſon: the Greekes call them *Galeas*, and we at this day meaſled ſwine, which you ſhall ſo perceiue by the lightneſſe of the tongue, and the horſeneſſe of their voice: there is ſo ſmall thinne skinne lapped ouer them, from which you ſhall perceiue them as it were ſiluer plated of leaſe at the bottome of their tongue. You ſhall alſo keepe them from this diſeaſe, if you giue them to drinke the Root of Bryony ſtampt, the generall and common remedie, in Maine of Spaine ſtrong and fine boxes, of euche ſide gobbet vnto a handful of Oate, beanes, them all together, and put them into Bagges, which bagges you ſhall caſt into their water when they drinke, and ſeeing it tuſſe in the water. Meaſled Swine.

EVP. Hoe, you *EVMEVS*, come not vnſeaſonable, but tell me truely how you doe to haue your Hoggs ſo fatte, I beſeech you, are you in the Warre ſo ſeaſon, that you ſhould not be?

EVMEVS. What meanes ſoeuer I vſe in ordring my flocke, is not to my Maſters loſſe, no more then is your diligence, whereby you bring your cattell to be ſo faire. I told you before, that he was an vnthriftie husband that had his Bacon from the ſhambles, and not of his owne prouiſion: and beſides, my Maſters the Phiſitions giue great cõmendations to hogs fleſh, in that it hath ſuch a neareneſſe and agrement with our bodies, neither is their (as I ſaid before) a beaſt that makes more diſhes. And therefore it is greatly for profite, to haue the husbandmans kitchen well ſtored with Bacon, wherewith he may ſuſtaine his houſhold all the whole yeere. You ſhall eaſily (though woods be wanting) find Barnes, Marſhes, and Corne feldes to fede them with. They will be fatte (as *Plinie* ſuppoſeth) in three ſcore daies, ſpecially if they be kept from meate three daies before you fede them: they are fatted with Barly, Otes, or other Corne, or pulſe, either giuen whole, or ground, but of all others, beſt with Maſt: and that fleſh is better, and of more ſubſtance that is fede with Acornes, then that which is fed with either Beech maſt, or Cheſtnutte. This beaſt will in time be ſo fatte, as he will be able neither to goe, nor ſtand.

Yea

Plinie writeth, that there was a Sowe in Italie, whose fatte was so fatte, that she was not only vnable to rise, but suffered a Sparrow to make a nest in her body, and to lay her yong there. The same Author reporteth, that there was sent to Domitian a Hellacour of Rome, a peece of Porke of two pounde, that tasted like and delicate meate as the kinde of Wilde Swine. Now the skinne to the Ribbe, was one foote and three inches. Your best is to put to fatting your Swine of two or three yeeres olde: for if they be younger, their growing will hinder their feeding. To keepe your Bacon any long time, you must vse greate diligence in the salting and dryng of it, whereby you shall haue it both holsome and sweeter, and besides to continue diuers yeeres to serue the turne, if scarsitie happen. Your Hogge being in this sort fatted, you must shut vp, and not suffer him to drink the day before you kill him, whereby the flesh will be the drier. When you haue thus after his thirst killed him, you shall either skald him with water, or with a flame made with strawe, or sticks, syndge him: for the maner of such as flea him, I like not. After that, hanging him vp by the heeles, you shall plucke out his bowels, and put them to dressing: his flesh being cold, and hard, you shall lay vppon a table, and cutting out the Head, the Gammon and the flaetches, pouder them with salt, thrusting great store thereof in euery place, specially where the bones bee: that donne, put it into your pouldring tubbe, strowing salt enough vnder it: some would haue you salt in the wane of the Mone. Before you pouder it, you must presse and dry out all the blood and the Water. Some before they salt it, doe plucke out the bones, thinking it the best way for preserning it, and to keepe it longest sweete. Others againe do not straightwaies put it into the pouldering tubbe, but doe leaue it vpon a Table for ten daies after, and then hang it vp in a pure ayre, to dry in the larde. And when it hath been dried in the winde certaine daies, by little and little, they let the smoke come to it, and afterwards more aboundantly. The Bacon will bee the sweeter, if before the smoke, the winde may come to it: if you hang it in greate smoke at the first, it will be rustie. *Dydimus* saith, that the Bacon will long continue sweete, if after the dressing, rowling, and

dryng,

drying, it be hanged vp in shadowy and moist places, rather towards the North, then towards the South, and that it will be sweeter, if it be couered with Smoke, and Chuse the Tables that you powder in, muste be such as haue had Oyle in, rather then those that haue had Vineger. Although I haue before spoken of the worthinesse and antiquitie of Shepheardes, and Heardsmen, yet must I here say, that it is in vaine to meddle with the ordering and keeping of cattell, except you haue handsome, and skilfull men that may take the charge: For the knowledge of keeping of cattell hath a discipline, wherein a man must from his very Childhood be brought vp: and surelie it is meete that the husband, or Bayliffe, haue ben brought vp, or trained in all theis trades, and to come by degrees to his maisters place: As from a Swinehearde, to a Shepheard, from a Shepheard, to a Neatheard, &c. And most true is it euen in this that commeth to passe in all other gouernments, that such as best able to take charge of gouernment, that passing by degrees and offices, haue from beeing vnder gouernment, come to gouerne themselues: For, though (where the flocke is but small, and feeding not farre off, is brought vnder euery day) Children and young fellowes, are able to serue the turne: yet where the flockes be greate, and muste be kept night and day in Fyrroles; and in the fieldes (as I saide before) of the flockes that winters in *Apulia*, and Summers in the Mountaines of *Rieto*, there I say the Shepheards muste both be men of liuelie age, Strength, and diligence, as also skilfull in that belonging to their office: for neither olde men, nor children, are able to endure the hardnesse of running the hilles, nor the sharpenesse of the colde Mountaines, which they muste alwaies vse that followe their flocke, specially they that kepe Bullockes and Goates, that delight to feede vpon Rockes, and Cliffes. You shall see on the Mountaines of Sabocchiano, great and goodly fellowes driuen hether in warlike manner to followe their heardes and flockes, and to lodge in the wilde desartes, farre from the companie of men, and there also to make both Butter and Cheese: wherefore such as are meete to take charge in theis places, muste be light, swifte, well limmed, and not only well able to followe their flockes, but it muste be to

Of shepheards.

defend them from wilde and rauening beastes, to lift great burdens, to followe the chase, and to be good archers: in fine, such a one as *Homer* doth make his *EVMEVS* to be. And therfore the old husbandes in hiring of a shepeheard, did alwaies couenant among others, that he should be sound of body and limme, and free from filching and theft. In *Sclauony*, the heardsmen doe vse to haue their Wiues alwaie with them, as companions of their iourney to dresse their meate, and such thinges as they neede: such things as are for the health of his beastes, the shepeheard muste haue alwaies in a readines. *Varro* would haue him lusty for this purpose, and for the better order of his reckninges with his maister, to write and read. Of the number of the heardsmen, howe many euery flocke ought to haue, is to be measured by the Countrey, and kinde of the Cattell. The same *Varro* alloweth for euery fourescore Goates one shepeheard, which *Aristo* alloweth to a hundred, to euery fifte Beares two men: in our Countrey one shepeheard sufficeth for a hundred, or two hundred sheepe, yea many times for three hundred, and aboue, speciallie where they be euery day brought home. One Swine heard will keepe twenty, or thirtie hogs, or more, if the grounde be thereafter, the like for Bullockes and Kine. For Horses we seldome haue heardsmen, but euery man keepeth them at home either in stables, or pastures, not commonly exceeding the number of twentie. In what order you shall finde your cattell, either in Somner, or in Winter, and when to driue to the South, and when to the West, I haue told you before. The Dogge (though the Lawyer alloweth him not in the number of cattell) and though he yeldes of himselfe no profite, yet is he as the shepeheard (for his trustines, & watching of the flocke) to be esteemed, and set by: for they haue bene seene to fight in the defence and quarel of their maister. Yea diuers of them haue bene knowen after their maisters death, vppon great affection and loue, to famish themselues, whereupon the price of good Dogges grewe to be very great. It is written, that *Anchiades* gaue for one Dogge, eight score pounds. There is not a more necessarie creature, then the Dogge about Husbandrie: for besides his singuler faithfulnesse and watching in the night time, he

Dogges.

he is also a quarter maister in keeping of the Cattell, and verie needefull for the defence of them specially Sheepe and Goates, which woulde be sone destroied by Wolues, Foxes, Grayes, and other vermine, if Dogges were not set to be their keepers. Swine feeding in heardes, if the wilde beastes inuade them, making as it were a *Barum* with their grunting and crying, assemble themselues in their owne defence. The greater cattell defende themselues sone with their heles, some with their hornes, onely the poore Sheepe hath no Souldier but the Dogge. Of Dogges that serue for profite, there are but three sorts: for of the fourth (which are but for pleasures) I make no account. Now of the sortes, is such as by kent, or swiftnesse serue for the chase, and killing of wilde beastes: these, what manner of ones they shoulde be, and how they shoulde be ordred, *Xenophon* and *Oppianus*, in their *Cynegeticke* haue taught, and I in my last booke, where I shall speake of hunting, will declare. But now I will onely speake of Dogges for the husbandes, and keepers both of the House and the Cattell: and first of the Dogge that keepeth the House: for this purpose you must prouide you such a one, as hath a large and a mightie bodie, a great and a shryll voice, that both with his barking he may discouer, and with his sight dismay the Theefe, yea being not seene, with the horror of his voice, put him to flight. His feature must neither be long, nor short, but well set, his head great, his eyes sharpe, and fierie, either browne or grate, his lippes blackishe, neither turning vp, nor hanging too much downe, his mouth blacke and wide, his weather iawe fatte, and comming out of it of either side a fang, appearing more outward then his other teeth, his vpper teeth euen with his nether, not hanging too much ouer, sharpe and hidden with his lippes, his countenance like a Lions; his breast great; and thighed, his shoulders broad, his legges big, his taile short, his feete verie great, his disposition must neither be too gentle, nor too curst, that he neither fawne vpon a theefe, nor flie vpon his friendes, very waking, no gadder abroade; nor lauishe of his mouth, barking without cause, neither maketh it any matter though he be not swifte; for he is bred to fight at home, & to giue warning of the enimie. The Bandogge for the house

The Shepeheardes Masty.

The Dogge that is for the folde, muſt neither be ſo gaunt nor ſwift as the Grayhounde, nor ſo fatte nor heauy as the Maſty of the houſe, but verie ſtrong, and able to fight and follow the chaſe, that hee may be able to beate away the Wolfe or other beaſts, and to follow the theefe and recouer the praye, and therefore his body would rather be long, then ſhort and thicke: in all other points hee muſt agree with the Mandogge. Touching the kinde, the Dogge is thought better than the Bitche, becauſe of the trouble ſhee bringeth when ſhee is ſalute: howbeit, the ſpaide Bitches do bite ſoreſt, and are more waking. For their age, they muſt neither be whelpes, nor to olde: for the whelpe can neither defende himſelfe, nor the flocke, where as yet the olde hath ſome vſe about a houſe. If you haue a whelpe (which age is better to be trained, either for the houſe or the folde) you ſhall perceiue by his ſute whether hee will be great or no. His head muſt be great, ſmooth, and full of vaines, his eares great, and hanging, his loines long, his forelegges ſhorter then his hinder, but verie ſtraight and great, his clawes wide, his nailes hard, his hole neither fleſhy nor to hard, the ridge of his backe not to much appearing, nor croked, his ribs round and well knitte, his ſhoulder pointes well diſtant, his buttockes fatte, and broade, and in all other parts (as I ſaide) of the Mandogge beſide. For his colour it maketh no great matter, though *Varro* would haue him white, and ſo would *Columella* the Dogge for the ſheepe, as he muſde haue the houſe Dogge to be blacke: but the pied colour is iudged naught in them both. The white they commende, becauſe he may be diſcerned from the woulfe in the night, whereby they ſhall not ſtrike the Dogge in ſtede of the woulfe. The blacke againe for the houſe, is beſt commended, becauſe of his terror to the theefe in the day, and the hurt that he may doe by night, by reaſon of his not being ſeene: the dunne, the branded, and the redde, doe not miſlike me, ſo they be well marked beſide. Thus muſt you iudging him as a lion by the claide, either bie one, or bring vp one for your purpoſe. Now touching teaching, or bringing vp, *Xenophon* appoynteth, appoynting *Hyrcanus* his example in *Xenophon*. To make them fierce and quicke, you muſt plucke them by the eares,

eares, set them together with your handes, and keepe them from being hurt: so shal you haue them the bolder, and the fiercer, and such as will neuer giue it ouer. You muſt vſe him firſt to the chaine, by tying him to a clogge, letting him drawe it a while by his necke, and when you haue a little ſpace vſed him in this ſort, then may you either leade him, or tie him: it is beſt to keepe them tied in the day time, to make them the curſter, and to let them loſe in the night time: ſo ſhall they in the night time watch, and in the daie ſleepe. To arme them againſt the Woolfe, or other wilde beaſtes, you may put broade collers about their Neckes full of Nayles, and iron ſtuddes, lyning it with ſoft leather within. You muſt loke that your Dogges bee of a good kinde, and (if you can) all of one kinde, ſo ſhall they ſticke the better together: chooſe them that haue the curſteſt Dammes, and ſuch as haue their Pappes euen. They begin to litter at a yeere olde, and continue nine yeeres, after tenne they be worth nothing. The Dogge (as *Columella* ſaith) getteth whelpes luſtily, till he be tenne yeeres olde: the whelpes of old Curres, are ſlowe, and naught. *Homer* ſeemeth to make the life of a Dogge, aboue twentie yeeres, where he ſpeaketh of the comming home of *Vlyſſes*, and the knowledge of his Dogge: And I my ſelfe haue ſeene Dogges that were ſaide to bee ſo much, but altogether vnprofitable. Their age may be knowen by their teeth, the yong hauing (as *Ariſtotle* ſaith) white teeth and ſharpe: the olde, blacke and blunt. In the Spring they begin to be lawte, and go with whelpe (as *Ariſtotle* and *Xenophon* ſaith) threeſcore daies, or at the moſt threeſcore and three. *Varro* writeth, that they go three monethes with yong: the Dogges of *Lacedemon* ingender at eight monethes olde, and all other Dogges alſo at halfe a yeere: they are with whelpe at once limyng: they litter about June: when they bee littered, they are blind, and the more milke they haue, the longer it is before they ſee, but neuer longer then one and twentie dais, nor ſooner then ſeauen daies. Some holde opinion, that if there be but one at a litter it will ſee the ninth daye, if two, the tenth day, and ſo a day added for as many as be, and that thoſe that be of the firſt litter, doe ſoneſt ſee: the beſt of the litter, is that

which lacketh, or which the Bitche firſt carieth to her Kennell. As ſoone as they be Whelped, caſt away ſuch as you miſlike: of ſeuen, kéepe three or foure: of three, two: while they be yong, at the firſt they muſt be ſuffered to play with the dame, that they may growe the better, afterwards, let them be taught, and tied (as I tolde you) tying them in the day, and letting them loſe in the night, and ſuch as you knowe to be of a good kind, and would haue them proue well, ſuffer them not to ſucke a ſtrange damme: for the milke and blood of the mother, is of greate force to the goodneſſe and growth of the Whelpe. And if ſo be the Bitche lacke milke, ſuckle them with the milke of a Goate, til they be foure moneths olde. Lay vnderneath them in their Kennels Strawe and Chaffe, that they may lie warme: for they can not well away with cold. You muſt cut the tailes of the Whelpes, when they be fiue weekes olde, in this maner, there is a ſinnowe that runnes from the ridge of the backe, to the tippe of the taile, which being held faſt with a pincer, and a little drawne out, you ſhall cut a ſunder, wherby neither the Taile ſhall growe to any foule length, nor the Dogge ſhall at any time after (as they ſay) be madde. They are thought to kill vp the legge when they piſſe, at fiue moneths olde, which is a ſigne of the perfectneſſe of their ſtrength. The féeding of both kindes is all one, they may be fedde with bones, porredge, and ſuch like: in any wiſe let them want no meate, for if they doe, they will for hunger rauen abroad, and forſake both the houſe, and the flocke. *Xenophon* woulde haue you giue them milke all the yéere long, and ſuch fodde as they ſhall feede with all their life time, and no other thing: if you feede them to full, it will breede (as he ſaith) diſeaſes in their legges, and rotte them within. Bread is their common meate, but *Varro* woulde haue it giuen either with Milke or Whay, by vſe whereof, they will neuer forſake their Cattell. You may giue them beſide, breade, with the broth of ſodden bones, and the bones themſelues broſed, which will make their téeth the ſounder, and their mouthes and iawes wider, and they will bée the keener, by reaſon of the ſweetneſſe of the Marrowe. You muſt beware they eate no dead ſheepe, leaſt by reaſon of the taſte, they fall to

the

the liue ones. While the Bitch hath Whelpes, you muſt fæde her rather with Barly breade, then wheaten breade: for they proſper better with it, and makes them giue more mylke. You muſt fæde them thryſe a day, in the morning when you tie them vppe, at noone, and againe at night, when you let them loſe. Their names that you giue them, muſt be ſhort, that they may ſoone heare when they bee called. The Grækes, and the Latines, gaue them names of two ſyllables, the Germanes lightly but one ſyllable, as Ball, Slut, Patch, Grim. &c. Although *Columella* would not haue their names vnder two ſyllables, ſhewing for example the names of Dogs among the Grækes, & the Latines, as σίλλος, μύια, αλκη, λάκαινα, and *Lupa, Tigris, Cerua: Xenophon* reckoneth vp thouſands all for the moſt part of two ſyllables. The diſeales and greeuances of Dogges, are the byting of Flies, Tyckes, and Mangineſſe. Againſt this you muſt waſhe them, when they bee Whelpes, with bitter Almonds ſtamped, and ſtrained with water, waſhing them both about their Eares, and betwixt their Clawes, that neither Flies ſticke to them and bliſter them, nor Tyckes or Lyce moleſt them: and if they be alreadie mangy, you muſt annoint them with Tarre, and Hogges greaſe: the Tyckes alſo, if you touch them with this medecine, will preſently fall off, for you muſt not plucke them of by force. If your Dogge bee full of Fleas, the remedy is Cummin beaten with a like quantitie of neeſing poudet, and mingled with watsr, rub him ouer with it, or the olde dregges of Dyle rubbed ouer all his bodie. If he be ſcabby, take *Cythiſus*, and *Seſamum*, beate them together, and mingling them with tarre annoint the ſore: this medecine wil alſo remedy a chriſtian creature. They ſay alſo, that if you thruſt the ſkinne through with an iron, it will heale the mangineſſe, or if you ſmear them ouer with Gunne pouder, or caſt them into a Tanners fat. *Ariſtotle* writeth, that Dogges are cheefely troubled with three diſeales, Madneſſe, Quinſey, and the Goute, and whatſoeuer he byteth in his madneſſe, becommeth alſo mad, and dieth thereof: the madneſſe is moſt extreame in the Dogge daies: whatſoeuer is bitten by them, falleth ſtraightwaies into a loathing, and feare of Water.

Fit nams for dogs.

With. To

To preserue them from it, you must mingle with their meate for thirtie daies together, or if they bee alreadie infected, giue them neesing pouder to eate. *Plinie* writeth, that there is in the tongs of Dogges a little worme, called of the Greekes *Lyrta*, which if it be taken out while they bee whelpes, they wil neyther bee madde, nor greedie, or rauenous. If the Dogge bee madde, hee refuseth both meate, and drinke, and driueleth ilfauoured fomie matter, both from his nose, and mouth, he loketh with a lothsome countenaunce, his bodie is leane, and more clong together then it was wont to bee, hee beareth his tayle betwixt his legs, and biteth without any barking whatsoeuer he meetes, falling as well vpon men, as beasts, making no difference betwixt his freendes, and strangers. As the Dogge is a watchman and keeper of the house and the flocke, so the Cat is also a housholde seruaunt to be cherished. The Egyptians for their profitablenesse, did worship for their god a golden Catte, for whereas Rats and Mise, as wel in Cities, as in Granges, are greatly hurtfull, we keepe vp Cattes for the auoiding of the mischiefe, neither is there a speedier remedie. The Catte is a beast of nature enimy to the mouse, watching in the night, and sleeping in the day, stealing suddenly and swiftly vpon the mouse: she seeth better by night, then by day (as *Alexander Aphrodiseus* writeth) her eies shine and glister in the darke. They goe a Catterwalling about Februarie, and other times in the yere (for they often ingender) & bring forth their yong ones blinde, as the Bitch doth. *Herodotus* saith, that after the Catte hath kitned, she commeth no more at the Bucke, which when he perceiueth, and cannot haue his purpose, he killeth the yong, whereof when she seeth her selfe bereft, for very desire of yong (whereof this kinde is most desirous) she cōmeth straight to the Bucke. For my part I would rather counsell you to destroy your Rattes and Mise with Traps, Banes, or Weesels: for besides the sluttishnesse and lothsomnesse of the Catte (you knowe what she lades in the malt heape) she is most dangerous and pernitious among children, as I my selfe haue had good experience.

Madde Dogges.

Cattes.

Soli deo honor & Gloria.

The end of the third booke.

¶ The fourth Booke, entreating of Poultry, Foule, Fiſhe, and Bees.

PVLLARIVS. CHENOBOSCVS. MELISSEVS. PISCINARIVS.

AS keeping and breeding of Cattell, doth yeeld no ſmal commoditie and gaines to the huſbande, ſo the nourishinge maintenaunce of Poultry, Foule, Bées, and Fiſh (if the countrey be for it) doth commonly ariſe to his great aduauntage, wherby both the reuenue is greatly encreaſed, and the table daily with dainty, and no chargeable diſhes furniſhed. Cages, and houſes for Birdes, wherin were kept al maner and ſortes of Foule, were firſt deuiſed by *M. Lelius Strabo* at *Brundiſium*, from which time it was firſt put in vſe, to pen vppe ſuch creatures, as naturally were accuſtomed to flée at their libertie in the aire. At which time alſo began to be brought in ſtrange & outlandiſh Foules, the keéping and breéding whereof, yeéldeth to the huſband both pleaſure and profite. We haue here brought in *PVLLARIVS, CHENOBOSCVS, MELISSEVS*, and *PISCINARIVS*, euery one of them ſeuerally entreating of ſuch things as belongeth to his charge. *PVLLA*

MELISSEVS. I ſée you haue here (*PVLLARIVS*) great ſtore of Foule, and Poultry, and I beléeue verily, the profite and commoditie of them, will not quite halfe the charges they put you to.

PVLLARIVS. Yes verily they quite your coſt, whether you ſell them, or keépe them for the kitchin. It is ſaide, that *Auidius Lurco* made yeérely of his Poultrie and Foule fiue hundred pound.

MELLISSEVS. But I do a great deale better like the common Poultrie, that we keépe about our houſes.

PVLLARIVS. We haue alſo of the ſame here at home with vs.

MELIS-

MELLISSEVS. Then let me vnderstād (I pray) in what order you keepe them, for herein you seeme to be most skilfull.

PVLLARIVS. It is meete that euery one be skilfull in that trade that he professeth. If you will I will not refuse to shew you that little cunning that I haue: so you on the other side vouchsafe to shewe me the ordring of your Bees.

MELLISSEVS. I will not sticke with you for that, to tell you the best I can.

PVLLARIVS. Well then with a good will I declare vnto you my knowledge, beginning first with those kinds that are most in vse: for amongst all other houshold Poultry, the chiefe place is due to the Cocke and the Henne, that are beside so common, as the poorest widdowe in the countrey is able to keepe them. In this Birde there are three points of naturall affection chefely to be wondred at. The first, the great carefulnesse that they haue during the time of their sitting, wherein for the desire of hatching their young, they seeme to be careless of either meate or drinke. Secondly, that they beare such loue to them, as they sticke not to hazard their owne liues in the defence of them. And thirdlie, that in the stormie, great colde, or sicknesse, they preserue and nourish them vnder their winges, not making for the while any account of their owne selues. There is hereof a most sweet comparison in the Gospell, wherein our Sauiour *CHRIST* compareth himselfe to the Henne that gathereth her Chickins vnder her winges. And therefore, sith these are common for euery man to haue, and that they alwaies feede about the house, I thinke it best to beginne with them, and to tell you which are best to bee liked, which to bee brought vp, and which to be fatted. First, the best to be brought for brood, are the dunne, the redde, the yellow, and the blacke, the white are not to be medled with, because they are commonly tender, and prosper not, neither are they besides fruitefull, and are alwaies the fairest marke in a Hawke, or a Bussardes eie. Let therefore your Henne be of a good colour, hauing a large bodie and head, a great head, with a straight redde and double combe, white eares, great, her tallons euen. The best kinde (as *Columella* saith) are such as haue fiue clawes, for they

The choise of Hens for brood

they

they be free from spurres: for such as weare those Cockish weapons, are not good for brode, and disdaine the companie of the Cocke, and lay but seldome, and when they sitte, with their vnruely spurres they breake their Egges. The little Pullets, or Hennes, though the olde age, both for their vnfruitfulnesse, and other causes disalowed them, yet in many places they proue to be good, and lay many Egges. In England at this day, they are vsed as a daintie dishe at mens tables. In the choise of your Cockes, you must prouide such as will treade lustily, of colours, as I tolde you for the Hennes, and the like number of tallons, and like in many other pointes, but of stature they must be hier, carrying their heads straight vp, their Coumbes must be ruddy and hie, and hanging, nor falling downe, their eyes blacke and sharpe, their Billes short and crooked, their eares greate and white, their wattells or yent, hauing vnder them as it were a kind of grayish beard, the Necke feathers of colour diuers, either a pale, golden, or a glittering greene, which must hang rufling from his Necke, to his shoulders, their Breastes must be large, and well brawned, their Winges well feathered and large, their Tailes dubled and flagging, their rumpes and thyes full of feathers, their legges strong, wel armed with sharp and deadly Spurres: Their disposition (for you that not nede to haue them great fighters) would be gentle, quicke, and lively, and specially good wakers, and crowers: for it is a Byrde that well aproueth both the night and the day, and (as *Pradentius* witnesseth) exhorteth to repentance. Neither must you on the otherside, haue him a Craddon, for he must sometime stand in the defence of his wife and his children, and haue stomache to kill or beate away a snake, or any such hurtful vermine: but if he be to quarrellous, you shal haue no rule with him, for fighting and beating his fellowes, not suffering them to treade, though he haue more then his handes full him selfe. This mischiefe you may easily preuent, with shackling him with a shoe sole: for although such lustie fighters are bredde vp and cherished for the game, yet are they not to serue the Husbands turne at home. A Cocke framed and proportioned after this sort, shall haue fiue or sixe Hennes going with him.

The choise of Cockes.

MELI.

MELI. I pray you let me vnderstande what time of the yere is best for bringing forth of Chickins?

PULLA. In some places, specially the hottest countries, the Hennes begin to lay in Januarie, in colder countries, either in February, or at the latter end of January: you must also further their laying, by giuing them meates for the purpose, as Barly halfe sodde, which maketh both the Egges the fayrer, and causeth them to lay the oftner. Some thinke it good to mingle therewith the leaues or the seedes of *Cytisus*, which both are thought to bee greatly of force in making them fruitefull. If this be not to be had, you may supply the want with *Spelt*, or (as *Cardanus* saith) with Hempseede, which will cause them to lay all the Winter. When they lay, you must see that their nestes bee very cleane, and kept still with freshe cleane strawe: for otherwise they will bee full of fleaes, and other vermine, which will not suffer the Henne to be quiet, wherby the Egges doe not hatch euen together, or many times ware addle and rotten. The Egges that you sette vnder them, must bee newe laide, howbeit, so they be not aboue tenne daies olde, it maketh no great matter: if you loke not to them, they will straightwaies sitte after their first laying, which you must not suffer, for the yong Pullets, are better for laying then sitting: the desire of sitting is restrained, by thrusting a fether through their nose. The old Hennes must rather be suffered to sit, then the yonger, because of their experience. Herein must you haue a speciall regarde to knowe which be best to sit, for some be better to bring vppe Chickins then to sitte. Others againe will either breake, or eate vppe both their owne Egges, and their fellowes Egges: such you must put aside, and if their Nayles and Billes bee sharpe, rather employ them in brooding, then in sitting. *Democritus* telleth, that Chickins may bee brought forth without setting vnder the Henne, if so be the doung of Hennes, sifted verye fine, be put in little bugges, backed about with soft feathers, vppon which the Egges must be laid straight vpright, with the sharpe ende inwarde: vppon these againe must the like quantitie of Hennes doung be laide, so that they bee of euery side closely co[illegible]

This done, you must suffer them to be for the space of three
daies, and then every daye turne them, taking good heede
that you knocke them not one against the other in the turning.
After twentie dayes, you shall finde the eggs broken: and
therefore the twentieth day, plucking away the shels: and tak-
ing out the Chickin, put may commit them to the Henne. It
is written, that Chickins haue been hatched by the continuall
warmth of a common lampe: besides, hath been seen, that
egges being laide in an Ouen, at a warme place, rouered
with Straine and Chaffe, hauing a little fire beside, and one to
turne them continually, haue disclosed and broken in their ac-
customed time. *Aristotle* writeth, that Egges put in warme
bellies, as couered with downe, and hatch of themselues. The
number of the Egges that you shall haue to sit vpon, alwaye
woulde haue to be odde, and not alwaies alike, but in Ianuary
and February fifteene, and no more, in March nineteene, and
no lesser which number you shall continue all the Summer, til
September, or October, after which time it is to no purpose to
breede any longer: for the Chickins, by reason of the cold wea-
ther and vnseason, neuer prosper. Columella is of opinion, that
after the tenth, or twelfth of June, you shall neuer haue faire
broode; and that the best season for sitting, beginneth at the
tenth of March. And herein you must alwaies be sure to haue
the Moone increasing. Know that the Hennes vse to sit from
fifteene to fiftie: for that is the best time to sit vpon. And howbeit you al-
gate dispose the time, in the hatching may fall out in the en-
crease of the Moone for the most time of hatching, there are sun-
dry opinions. *Aristotle* writeth, that they are hatched in nine-
teene daies, *Varro* (for Chickins) one and twentie daies, or
foure and twentie daies, for Peacockes and Geese, seuen and seuen
daies, and sometimes more: Diuines, in the Psalme for the
Hennes, especially if they sit aright and safe, affirming them on-
ly the Hatching, and the Cackling to come: which signes they
giue of necessitie haue. If so be you will set vnder your Hennes
Peacocks Egges, they will hatch sooner, you shall set her vpon the
Peacocks Egges, fourteene before the time for other Egges,
when they shall be hatched aforesaid; then shall you set

Hens

aboue

To haue Cocke-chickins, or Henne chickins.

Against hurt of thunder.

aboue fiue Henne egges or Cocke Egges vnder a Henne. If you would haue all Cocke Chickins, you muste chuse such Egges as be longest and sharpest, as again (for Hennes) the roundest, (as both *Plinie* and *Columella* write) though *Aristotle* seeme not of that opinion. To vnderstande which be good Egges, which not, you muste (as *Varro* teacheth) put them in water, and such as be naught, will swim aloft, and the good straight to the bottome. Others do hold them vp against a Candle, and if they see through them, they iudge them light and naught. Yet must in no wise shake them, or hogge them, least you breake the stringes of life, that are but newly beginning: it hath been saide, that by shaking of the Egges, the Chickins haue been hatched lame. Wee may beside perceiue whether the Egges will proue well or no, if foure daies after the Henne haue sitten, you hold them vp in the sunne, or other light, and if you see that they be cleare, cast them away, and put other in their places. Against thunder, that many times marreth the Egges, some doe sette about them the Leaues or Braunches of Bayes, or Benties, or Grasse, other some (against) the heades of Garlicke, and nailes of iron. In the great heate of the Sommer, you muste moiue and then sprinkle the Egges a little with water, and wet them, least by the extreame heate they ware drie and addle, specially the Egges of Turkeies and Hennes. Whensoeuer you meane to make cleane their nestes, you muste take vp the Egges, and lay them tenderly in some little Basket, and so laye them softly againe in the cleane nest nere to the place where the Hen sittes, you muste sette water, and meate, that they may better keepe their nestes, and that by their long absence the Egges ware not colde. And although the Henne doth alwaies turne her Egges, yet it behoueth you when she is from the nest to turne them softlie with your handes, that by receiuing a like warmth, they may the sooner be readie. And if she haue happened to bruise any of them with her feete, you muste presently remoue them. At the nineteenth day, you muste looke diligently whether the Chickins doe iobbe the shell with their billes, and hearken whether they peepe: for many times by reason of the hardnesse of the shell they cannot come forth, and then you

must

muſt helpe them out with your handes, and put them to the Henne, and this you muſt doe no longer then three daies: for the egges that after one and twentie daies make no noiſe, haue nothing in them, and therefore you muſt caſt them away, that the Henne loſe not her labour. Vppon the twentieth day, if you ſturre the egges, you ſhall here the Chickin, from that time beginne the Feathers, the Chickin lying ſo, as the head reſteth vppon the right foote, and the right wing lieth vppon the head, the yolke vaniſhing by little and little away. You muſt not take the chickins away as they be hatcht, but ſuffer them to remain one whole day with the Henne in the Neſt without meate or drinke, till ſuch time as they be all hatched. It is wonderfull, and yet the experience ſeene, that before they be fethered to eate they take no harme, though they fall from a great height. The next day, when all the flocke is come forth, *Columella* would haue you to put them vnder a Siue, and to perfume them with the smoke of pentriall, or to hang them in a baſket in the ſmoke, which preſerueth them (as it is thought) from the pippe, which many times beſetteth the poore Chickin: then muſt you put them into Coops with the Henne, and feede them at the firſt daies with Barly meale, ſodden in water, and ſprinckled with a little Wine. Afterwardes, when they goe abroad, you muſt ſeele euerie one of them, whether there remaine any of the meate they receiued the day before: for if their croppes be not empty, it ſtoppeth vnto digeſtion, and therefore you muſt kepe them faſting till all be digeſted. You muſt not ſuffer them to go farre from the Henne, but to kepe them about the coope, and to feede them till they waxe ſtrong with boyled Barly, and Barly Meale: you muſt alſo take good heede, that they be not ſeene thee vpon by either Kenne, Snake, or Kite, for the aire of ſuch is ſo peſtilent, as it by and by deſtroieth the whole: which miſchiefe is auoided by burning of Hartes horne, *Galbanum*, or Vulcan and Haire, the ſmoke of all which preſerueth this peſtilence. You muſt ſee before that they lie warme, for they neither can ſuffer colde, nor ſo much heate, the feathers about their tailes muſt be pulled a little, leaſt with the harboring of their dounge, their paſſages be ſtopped, which if it be, you muſt open ſoftly with a little quill

you

you muſt keepe them with the Hennes for a moneths ſpace, and after ſuffer them to goe at libertie. Both the olde and the yong, Againſt the pip. are of all other diſeaſes moſt troubled with the Pippe, ſpecially about Harueſt time, which is a little white ſkinne, couering the tippe of their tongue, which is to be plucked away with the Nailes, and the place to be pouldred with Aſhes, or Garlike pouldred and ſprinckled vpponit. From this plague you ſhall preſerue them, by feeding them in cleane pelleles, and geuing them alwaies the pureſt and cleaneſt water, and keeping their houſes alwaies cleane and ſmoked, or by ſmoking them as they ſitte, with the ſmoke chefely of Bayes and Sauin. The wiues of the countrey do commonly cure them, by thruſting a Feather through their noſe, and ſtirring it euery day: their diet muſt be Pearbgrote mingled with Butter or Garlike mingled with Meale or Water, or Cloues of Garlike ſweete in warme Sallet Oyle, and put into their mouthes. Some (ſaith *Columella*) doe vſe to waſhe their mouthes with piſſe, and keepe their Billes ſo long cloſe, as the ſalt and bitter taſte forceth them to caſt at their Noſe the ſeede of the Diſeaſe. Others againe doe put Garlike in pellottes, and putting them in ſtanding Oyle, after it is reſolued in the their Mouthes. If they happen to eate Lupines, they will ſtraight ſwell vnder the eyes, which if you doe not gently open, and take out the Coze, it preſently killeth them. And if ſo be the Pippe haue not yet cloſed vp the eyes, and that they forſake their meate, you muſt touch their Cheekes with a ſharpe knife, and thruſt out the water that lieth vnder the eyes and put in the wound ſalte finely beaten: this happeneth chefely when in the Sommer time they drinke foule water, and alſo when they haue meat, or take colde. If their eyes be ſore, you muſt waſhe them with the iuice of purſelane, and Womans milke, annointing out the outſide, as with Cummin, Honey, and ſalt Ammoniacke. You ſhall trieade them of Lice, with parched Cummin, and Fetches are a like quantitie of earthe beaten together, and powred on with Wine: alſo the water wherein white Lupines haue been ſodden. If your Hennes fall to eating of her egges, taking out the white, you muſt powre in Plaiſter, or ſome ſuch thing, that may come to a hardneſſe in the ſhell.

To keepe them from eating of Grapes, you shall giue them the berrie of the wood called the wilde Vine, gathered from the Hedge before it bee ripe, and sodden with Wheate floure, the euill taste whereof will cause them to loth Grapes. *Plinie* affirmeth that if you giue them the flowers of the Vine with their meate, they will not touch the Grape. As in all other cattell of the Countrey, so in these kindes the best are to be kepte, and the worst either to bee solde, or to bee killed in the house. And therefore euery yeere about the fall of the leafe, when they cease to breede, you shall lessen their number, and put away the olde ones. Such as are aboue three yeeres, and such as are either vnfruitefull, or not good bringers vp of Chickins, but spetially those that eate vp either their owne Egges or their fellowes, or such as after the Cockishe maner either crowe, or treade: to which number you shall also adde, such as were hatched after the tenth of June, which neuer prooue to bee faire, but the Cocke among as he is able to treade you may keepe: For you shall seldome meete with a good Cocke. For fatting, the beste these that haue the skinnes of their neckes thicke and fattishe. The place where you meane to fat them, must be very warm, and of little light, because as both *Varro*, and our owne experience sheweth, the light, and their often stirring, keepeth them from being fatte: thus must they be kept for fiue and twentie daies, wherin they will bee fatte. Let them hang euery one in his Basket or Cage by himselfe, which must haue in it two holes, one to thrust out his necke at, the other to cast out his doung, that he may discharge himselfe, and let them be strawed either with straw, or course hay: for the harder they lie, the sooner they fatte. Pull awaye besides their feathers from their heads, their wings, and their tailes, the one for auoiding of lice the other for binding their bodies. The meate that you giue them, must be Barley meale, which mingled with water, be made in little pellettes, wherewith they will bee fat (as some thinke) in fourteene daies: but see that you giue it them but moderately at the first, til they well digest it, after giue it them in quantitie, according as they digest it: and in any wise giue them no newe, till you perceiue, by feeling of their croppes

Choise of Poultry.

Fatting of Poultry.

was (I think) the cause that the old people made choise in their quitrentes of smoke Hennes, as of the best, as it appeareth by olde Rentalles. Let the front of your Henne house stande alwaies towardes the East, and to that coast let the doore open. Let the inner roomes bee well furnished with Rootes and Lathers, and small windowes opening Eastward, at which your Poultry may flee out in the morning, and come into the roust at night. Looke that you make them close at night, and let the windowes be wel letteised for feare of vermine. Let your nestes and lodginges, both for laiyng and breding, be orderly cast, and against euery nestle and roustling place, place steppes and bordes to come vp by, making them as rough as may be, that the Hennes may take good holde when they flee vppe to them, and not by their ouer smoothnesse, bee forced to flutter and hurte their Egges. It shall not bee amisse, if you pargette the house both within and without with good Plaster, whereby neither Weesell, nor other hurtfull Vermine may enter in. Boarded floore are not for foule to rouste vppon, which almost all kinde of birdes refuse, because of the hurt that they receiue by their doung, which if it cleaue to their feete, breedeth the Goute. And therefore to roust vpon, you must make them perches, which *Columella* would, should be made foursquare: but it is better to haue them round, so that they be not to smothe for them to take hold by. Let the Perches reach from one side of the wall to the other, so as they stand from the floore a foote in height, and two foote in distance one from the other: and thus haue you the fashion of your Henne house. The Court where they go, must be cleane from doung and durtinesse, not hauing water in it, sauing in one place, and that must be very faire and cleane: for if it be puded, or durtie, it breedeth (as I saide before) the Pippe. To keepe their water cleane, you may haue faire earthen, or stone vessell, or Troughes of wood, couered in the toppe, in the which there must be seuerall holes so bigge, as the head of the foule may easely enter: for if you should not keepe them thus couered, the Poultry would in their drinking defile and poison it with their doung. Their meate must be giuen them betimes in the morning for straying abroad, and

a little before night, that they may come the timelier to their rest. Those that lye in the Coope, must (as *Columella* saieth) be fed twise in the day: the others must be vsed to an acquainted voice, that they may come at the calling. The number must be well marked: for they some deceiue their keeper. Beside, you must haue rounde about by the walles, good plentie of dusse, wherein they may bathe and proyne themselues: For as the Swine delighteth to wallowe in durte, so doth this kinde to bathe and tumble in the dusse. And this is (I thinke) almost all that is to be saide of Poultrie.

MELLISSEVS. Yea, but wee must heare something also touching the other sortes of Foule, that are kept about the house, which peraduenture *CHENOBOSCVS* can instruct vs of.

CHENOBOSCVS. And if you will needes haue me, I will not refuse to shewe you somewhat also of my feathered cattel.

MELLISSEVS. I pray you do so.

CHENOBOSCVS. Amongst the Foule that wee keepe about our houses in the Country, the seconde place of right is due to the Goose and the Ducke, which are of the number of those that they call *Aequatilia*, because they liue as well vpon the lande, as the water. And because the keeping of Geese requires no great labour, it is a thing not vnmeete for the housbandman, for that (if he haue place commodious for it) it is done without any charges, and yeldeth good aduantage both with their wooll, and feathers, for beside the profite of their Egges, you may twise in the yeare, at the shearing, and the fall of the leafe pull them. Moreouer, they are a very good dishe for the table, yea, being more watchfull then the Dogs, they giue warning when they sleepe. And therefore they were with the Romanes had in great honour, because they with their gaggling deliuered the mainy, that other time in the night time had take the towne. *Plinie* writeth of a Goose, that would neuer lie from the Philosopher *Enclides*. Your choise must be of those that be of the fairest kinde: *Varro* likethe best the white ones, which colour was most esteemed in the old time, as apeareth by the presents that were giuen to the same *Varro* accounteth the grake Of Geese

for a wilde kinde. They are kept in Marshes, Fennes, Lakes, and Woodie commons: for to Corne ground, Medowes, and Pastures, it is a verie hurtfull Foule: she biteth whatsoeuer young spring she may reach, and what she once hath bitten, doth neuer lightly prosper againe. Besides, she trencheth the ground with her vnprofitable, or rather most hurtful dounging: wherefore (as I saide) it is best to keepe them in Fennes, Lakes, and Marshes. If you haue store of such ground, you shall do well to keepe them: for you can not well keepe them without good store of water and pasture. The Goose delighteth in such meate as is naturally moist and colde, and shunneth naturally such thinges as are hurtfull for her, as the leafe of the Bay, and (as *Alianus* writeth) the *Oleander*: the best and meetest time for them to breede in, is from the Kalends of March, to the tenth of June. They tread most commonly in the water, whilst they swimme in the Riuers, or Fishponds. *Columella* would haue you keepe for euery Gander, three Geese, thinking by reason of their vnweldinesse, this number to suffice: within your court, you must make them for their better safetie, seuerall, and secret pennes, in sundry parties thereof, where they may sitte and breede. Some would haue the Goose route framed in such order, as euery Goose may haue her place to her selfe: which, if any man thinke to troublesome, he may make one sufficient wide rome to serue them all. The places where they shall lye, must be dry, and well strawed with straw, or such soft matter, and well defended from vermine. The Goose must not be suffered to lay out of her nest, but when you shall perceiue they sicke it, you must gesse them, and if they be with Egge, which you shall easely feele, but shutte them vp in their nestes, which you shall not neede to do aboue once, or twise: for where shee hath once laide she will alwaies of her selfe sicke to be. They will lay (as some hold opinion) thrise in the yeare, if they be not suffered to sitte, as it is best you be not: for their Egges are better to be hatched vnder a Hen ne, then of them selues, and will better a great deale prosper. The Egges of Geese, and Swannes, were vsed (as *Alianus* witnesseth) as a most daintie dishe at banquettes, among the Kinges and Princes of the Indies.

Architecture mentioneth, that I said the Females vse to sitte, and neuer the Gander, contrary to the order of many other foules, continuing alwaies till they haue hatched. After the last laying, you shall suffer them to sit, and marke euery ones Egges with a seuerall marke, that they may be set vnder their owne Gose, for it is thought they will neuer hatche a strangers Egges, without she haue her own vnder her. Of Gose Egges, as of Pehennes Egges, you shall (as I saide before) neuer set vnder a Henne aboue fiue, nor vnder three: but vnder the Gose you shall set at the least seuen, and at the most fiftéen. You must kéepe to laye vnder your Egges, the rotes of Nettles, which they saye, preserueth them agaynst the stinging of Nettels, which otherwise many times killeth the Gosling, if they sting them. The Egges will not be hatched if the weather bée colde, before the thirtieth daye, if it bée warme in lesser time: howbeit for the most part, the Gosling is hatched the thirtieth day after the sitting. Some doe vse to set by the nestes, Barly steéped in water or Malte, whereby the Gose shall not bée forced to be any while absent from her Egges. When your Goslings are come forth, you shall for the first tenne daies fede them with the Gose in the nest. Afterwards, when the weather is faire, you may suffer them to go abroade, taking good heede that they bée not stinged with Nettels, nor that you let them goe a hungerd into the Pastures: but to giue them afore they go abroad the leaues of Endiue, or Lettuse chopt, to asswage their hunger: for if you put them a hungerd into the feelde, they straine and breake their owne neckes, with pulling at the tough and stubburne weedes, by reason of the sudden starting back againe of the weede. The Goslings of diuers broodes must not go together, nor be shutte vppe together, for hurting one another. When they be foure moneths olde, or somewhat before, is the best time for fatting them: the yong ones are soonest, and easliest fatted. If you giue them ground Malt, and wheate floure, you néede to giue them nothing, so you let them haue drinke enough, and kéepe them from going abroade. The Grékes did vse to put to two partes of ground Malt, foure partes of Bran, temp'ring it with water, letting them drinke three a day, & at

Fatting of Geese.

moonlight. If you would [illegible] as soft and tender, you shall mingle dry Figges well beaten with water, and making pellets thereof, cram them with it for the space of seventeene, or twentie daies. The Jewes at this day, being the skilfullest feeders that be, doe vse a straunge order in the fatting of them, wrapping the Goose in a Linnen apron, they hang her vp in a darke place, stopping her eares with Pease, or some other thing, that by neither hearing, nor seeing of any thing, she be not forced to struggell, nor crie: after, they geue her pellets of ground Malt, or Barly steeped in Water three a day, setting by them Water and Grauell, by which manner of feeding, they make them so fatte, as the Liuer many times commeth to bee fiue pounde in weight. Whyles I was at the Councell of *Wormes*, there was a Liuer of a Goose brought me by a Jewe, that waied foure pounde. *Plinie* is also a witnesse, of the greatnesse of the Lyuers of fatte Geese, affirming, that they will growe after they bee out of the bodies, being sprinckled with milke. The common order of fatting with our country people, is to shut them vp in a darke, and a narrowe place, and to set before them Barly, or Beech wheate, giuing them water, with a little Sand, or Grauell in their Troughes: and with this order they haue them fatte in fourteene daies. After harueſt, they will be fatte with the Grotten, or Stubble. They are plucked (as I said before) twise in the yeere, in the spring, and in the fall of the leafe. Some vse to clippe them, but then their feathers neuer growe so well: but if you pull them, you shall haue them to come verie faire againe: and this is enough for a Goose.

Duckes. Duckes and Weales, are to bee ordered in like manner almost as the Goose, sauing that they delight more in Waters, and Marshes: and therefore you muſt force some Waters, Lakes, or Poles, for them, whereunto they may easily goe and swimme, and diue at their pleasure. *Columella* would haue you haue a Court for the nonce for them, where no cattell vse, and neare to the house, rounde about the which you shall builde for them little handsome romes, three foote square, with yetie dores to euery one of them: which when they breede, you shall keepe shutte. Hard by, you muſt haue either some

Pond,

pond, or Water wherein (as I said) they may liue: for euen without the helpe of the water they can as well liue, as without the land. It is good also to haue neare vnto them, some good Pasture, or meddowe, or to set about the Ponds or Riuers, such hearbes as they best like, as Clauer, Fenegracke, Endiue, Lettise, and such other as they most delight in, and wherewith their young doe well feede: beside, you shall giue them Otes, Barly, and other corne in Water. There is nothing that they more loue then Aloones, nor that better fatteth them. They delight wonderfully to be amongst Reedes and Sedges, wherein they may lie safe from rauenous Birdes, but so, as there grow no great tall weedes, that may hinder their swimming: for they delight greatly to plaie them selues in the water, and to striue who can swim fastest, when the weather is faire and warme: so as they haue such places where they may best play vpon the creatures of the water, so are they much offended, if they be restrained of their libertie in swimming. In Winter, when the Pondes be frozen, you must ply them sometimes with meate. They delight to make their nestes in some secrete Couert, but therein you must preuent them, and make their Nestes in their owne lodging, or abroad, well couered and closed with boordes: to which nest you must haue some little sluice or gutter, by which you may euery day poure in Water and Meate. Their foode must be (as I said) Otes, Barly, Peaso, Buckle, Millet, and Sperye, if you haue any Sperye. They lay great store of Egges, wherewith as with Hennes Egges, you may well feede your familie. The Egges of Duggues and Geese, are kept in like sort as I told you of Hennes Egges: and beside in Bran, Wheate or Ashes. They breede in the same season that Geese and other Foule doe, about March and Aprill. And therefore where you kepe them, you must prouide sticks and Brawses for them to make their nestes withall. Their Egges must be suffered to be hatched by them selues, or els remoued & set vnder some henne: for the Duckelinges that the Henne hatcheth, are thought to be gentler then other. You must take good heede, that the Egges which they lay, bee not eaten and spoyled by Crowes and Pies, while the damme is sitting abroad for meate. If to be

you

ther house Meeres, and Lakes for the purpose. It is best to let the dammes bring them up, for when they be hatched, they will liue very wel vpon the water with their Dammes, without any charge at all: onely taking good heede, that they be defended from Buzardes, Kites, Crowes, and other like vermine: but so vse them, as they will euery night come home to the house, for it is not good to let them be abroade in the night, for danger of losing of them, and making them wilde. Yet hath it been seen, that such as haue hatched abroade, haue afterwardes come home, and brought with them a great number at their tailes. When I was Embassadour in England, it was told me by men of good credite, that there was in Scotland neere to the Sea, certaine Trees, that yerely brought forth a fruite, that falling into the Sea, became a kinde of wilde Duckes, or rather Barnacles, which though it seemed strange vnto me, yet found I *Aristotle* a witnesse of the like, who writeth, that the Riuer *Hypanis* in *Scythia*, bringeth forth trees, whose leaues, being some what larger then Maple leaues, wherein groweth a kinde of foure footed Birdes. But now to Peacockes, which Birdes being more for pleasure then profite, are meete to be kept of noble men, then of poore Husbandes of the Countrey, though *Varro* writeth, that *M. Anfidius Lurco*, who first begaune the fatting of this Foule, made yerely of his Peacocks foure hundred pounde, whose example moueth many following, the price of Peacocks growe to be great, so much, as their Egges were solde for halfe a crowne a peece, the Peacockes themselues, at foure Nobles a peece. The flesh is verie good and delicate, meete for noble mens Tables, and will be long kept without corrupting, the Egges also be verie pleasant, and good to be eaten. *Hortensius* they saie, was the first that euer killed Peacocke for the Table in Rome, as a newe dishe at the Priestes feast. To this Bird, is ascribed both vnderstanding and glorie: for being praised, he settes vp straight his taile, and (as *Plinie* eloquently describes it) cheefely against the Sunne, whereby the beautie may more be seene. His taile falling euery peere with the fall of the leafe, he mourneth, and creepeth in corners till his taile be growne againe. They go abroad, as

Peacocks

Hennes

Hennes and Chickens doe without a keeper, and get their owne liuinges. They be best kept in little Flockes: for they flie neither hie, nor farre off. Some thinke it to bee a spitefull and an enuious Birde, as the Goose to be shamefull, and that hee deuoureth his owne young, because he would haue no man receiue benefits by him. He liueth (as Aristotle saith) fiue and twentie yeeres: his mettle at three yeeres olde, the Cocke hauing his feathers diuersly coloured: he hatcheth in thirtie daies, as the Goose doth, and layeth three times a yeere, if his Egges be taken away and set vnder a Hennie. You must loke, that those that you set vnder a Hennie, be newe laid, and that the Hennie from the first of the Moone, bee set vppon nienne Egges, fiue of the Peacocks, and foure of her owne. The tenth day after she hath sitte, take away the Hennes Egges, and put vnder the like number of fresh Hennes Egges. They must be turned, and therefore marked vppon one side. And see that you chuse the greatest Hennes, for if the Hennie be little, you must take the lesser number of Egges, as three Peahennes Egges, and fiue Hennie Egges. When they bee hatched, you must ordeine with the Hennie, let them alone the first day afterwards bring them out, and put them with the dammie into a Pen, and feede them at the first with Barly flowre sprinckled with water, or pappe made of any other Corne, and roled. A fewe daies after, giue them beside this, chopped Lekes, and Curdes, or fresh Cheese, the Whay well wrong out: for whay is thought to be very hurtfull for the chickins. After they be a moneth old, you may let them goe into the feeld and followe the Hennie, tying the Hennie with a long line, that she go not too far abroad, but that the Chickin may come home in time. After the sixth moneth, you may giue them Barly, and bread: and after the seuenth moneth, you may put them to rouste in the house with the other Peacockes, not suffering them to sit vpon the ground, but vppon Perches for taking of colde. And although when they ware greate, they cheefely delight to sitte vppon the toppes of Houses, and bee as the Goose is, which are the best watchmen, and also the best warning geuers in the night time: yet is it best for you to vse them to sitte vppon Perches, in Houses

ses made purposely for them. *Columella* thinkes it not good to suffer sundrye Hennes with their Chickins to feede together, because the Henne after she seeth a bigger then her owne, maketh the lesse account of her owne Chickins, and many times by that occasion forsaketh them. The Cocke, for the great lust that he hath to treade, breakes asunder the Egges that be vnder the Henne, and therefore it is best to haue the Hennes to sit as secretly as may bee: they also vse to beate and chase they owne Chickins, till they see them crested vppon the head, taking them till then, to bee none of their owne. One Cocke sufficeth for fiue Hennes, who by too oft treading, doth many times cause that the Egges neuer come to good. In warme countries they beginne to treade in Februarie, when setting vp his taile round about him, taking himselfe for no small person, he beginneth to woe, and therefore at this time both the Cocke and the Henne, are to be cherished with meates for the purpose to encrease their lust, as Beanes boiled a little by the fire, and giuen them warme euerie fiue daies in the morning. The quarellous and troublesome Cocks, must be seuered from their fellowes, for hurting the weaker, and keeping others from treading. The Hennes must be kept so, as they may laye onely in their houses, and euery day groped for their eggyes, & heedely looked to, with softe straw laide vnder their Perches: for many times they lose as they sit vppon the Perch. The diseases of this Foule, and the remedies, are almost one with the diseases of the houle Cocke and the Hen spoken of before, that is the Pippe, and ill digestion. Their greatest danger is, when their Combes come first out, for then are they pained, as children are in breeding of teeth.

Diseases.

Turkie Cockes.

MELLISSEVS. I would faine learne the right ordring of their outlandish Birds, called Turky Cocks, & Turky Cockes.

CHENOBOSCVS. This kinde of Poultry we haue not long had amongst vs: for before the yere of our Lorde. 1530. they were not seene with vs, nor I beleeue knowne to the olde writers. Some haue supposed them to be a kinde of the Birdes called in the olde times *Meleagrides*, because of their bleiwh combes: but these kindes haue no enimie, but onely battles.

Others

Others againe reckon them for a kind of Peacockes, because they doe in treading time after the same sort, spread and set vp their tailes, bragging and banting them selues: howbeit they neither resemble these in all pointes. But because this kind of Foule, both for their rarenesse, and also the greatnesse of their body, is at this daie kept in great flockes, it shall not be much amisse to speake of them: for in daintinesse and goodnesse of meat, the Hennes may compare with either the goose, or the Pehen, and the Cocke farre excell them. The colour of their feathers, is for the most parte white, blacke, or pied white and blacke, some blewe and blacke. Their feete are like vnto the Peacocks, their tailes short, but spread, and borne vp after the Peacockes guise, specially when they tread. The heads and the necks of them, are naked without feathers, couered with a wrinckled skinne, in maner of a Cowle, or a Hoode, which hanging ouer their billes, they draw vppe, or let fall at their pleasures. The Cocke hath the greater wattels vnder his chinne, and on his breast a tufte of haire. The colour of that wrinckled skinne about his heade (which hangeth ouer his bil, and about his neck, all swelling as it were with little blathers) he changeth from time to time like the *Chamalion*, to al colours of the Rainebow, sometimes white, sometimes redde, sometimes blewe, sometimes yellowe, which colours euer altering, the bird appéreth as it were a myracle of Nature. The dieting and keeping of them, is almost al one with the Peacocke, saying that this bird can worse away with colde, and wet. It is a birde wonderfully giuen to breeding, euery Cocke must as the Peacocke, haue foure or fiue Hennes with him: they are more forward in breeding then the Peacocke, beginning either the first yeare, or at the farthest at two yeare olde: they begin to lay in March, or sooner. In hotte countries they lay greate numbers of Egges, if they be continually taken from them, and set vnder hennes, and if so be you take them not away, they begin to sit at the first: for they be of all others most giuen to sitting, and so much, that if you take away all their Egges, they will sitte vpon a stone, or many times the bare nest. You must therefore restraine them of this desire, either by thrusting a feather through their nose (as

I before told you) or by wetting their bellies with cold water. You muſt ſette vnder their Egges (as I taught you before) in the Peacock: for they haue both one time of hatching. The keeper muſt marke the one ſide of the Egges, and alwaies tourne them, ſprinckling them now and then gently with faire water, and take heede the Cocke come not at them, for he will breake them as well as the Peacocke: for the Cocke of this kinde, is a froward and miſchieuous Birde. The Chickins being hatched vnder a Henne, may be kept with the Hennes Chickins, or els verie well alone with the Henne, growing faſter a great deale then the Peachicke. You ſhall feede them in like ſort as you doe the Peacocke, or other Poultry: for they will eate any thing, and delight in Graſſe, Weedes, Graueil, and Sande. And becauſe they cannot away with colde, nor wette, you muſt keepe them in Winter, in the warmeſt and drieſt places you haue. The Pearches whereon they vſe to ſit, muſt not bee hie, but an eight or tenne foot from the ground, neither be they able to flee any great height, and therefore muſt bee holpen with Lathers, or ſteppes. The greateſt diſeaſe, that they are ſubiect vnto, as the Pippe and the Squecke, which muſt be holpen in like ſorte as the Hennes, and the Egges kept after the ſame manner. In ſome places they vſe to make Capons of them when they be yong, which are ſerued as a daintie diſhe to the table, as was much vſed in the houſe of that godlie and vertuous *Sempronia*, that Ladie Hales of Kent, who was firſt the wife of ſir Water Mauntill of Northamptonſhire, a woman in whom all vertues and bounties in her life time flouriſhed.

Ladie Hales a mirror of Gentlewomen.

MELLISSEVS. I well remember that ladie, and haue hearde her highly commended of ſuch as in her life time beſt knewe her, for a number of gratious and godlie giftes that were in her, as her ſpeciall loue and delight in God, and in his ſeruice, her helpfull hande and comforte to ſuch as were poore and diſtreſſed, as well in releeuing them with meat and money, as with healing diſeaſes, and curing a number of lothſome, and almoſt incurable vlcers and wounds, her milde and ſweete diſpoſition, her great humilitie, and careleſneſſe of the vaine worlde, and other ſuch vertues, I woulde to Chriſt that all o-

ther

ther Gentlewomen, that profesſe Chriſt outwardly, were as well giuen to follow him indeede, as ſhe was vnfainedly.

CHENOBOSCVS. She was the verie Phenix and Parageon of all the Gentlewomen that I euer knewe, neither am I ſure I ſhall euer ſee the like: but ſhe happely reſteth with him, whom in her life time ſhe ſo earneſtly ſerued. If you be not wearie, I will returne to my Foule, and ſhewe you the beſt order for keeping and maintaining of Pigions.

PVLLARIVS. I thinke both *MELISSEVS* and *PISCINARIVS* would gladly heare you tel vs ſomthing of this, as I my ſelfe muſt willingly alſo would.

CHENOBOSCVS. Though you *PVLLARIVS* are better able to ſpeake hereof then I am, yet becauſe of my profeſſion, I will not refuſe to take it vppon me. Whatſoeuer Pigions.
he bee, that giues himſelfe to the trade of Husbandry, it behoueth ſpecially to haue a care for breeding of Pigions, as well for the great commoditie they yelde to the kitchin, as to the profit and yerely reuenue that they yelde (if there be good ſtore of Cotne houſes) in the Market. *Varro* writeth, that in his time a paire of Pigions were ſolde for 1000. *HS.* And that *Lucius Axius*, a knight of Rome, before the ciuill warres betwixt *Ceſar* and *Pompei*, ſolde his Pigions at 1.li. the paire: ſo much was that time giuen to wantonneſſe and gluttonie, yea all this day in our time, hath there been ſene giuen for a paire of Pigions 1.li. Flemiſh. And therefore the Douehouſes are commonly built with great coſt, and beautie in the toppes of turrets and houſes, from whence by narrowe grated windowes they flee abroad to their feeding. Pigions (if the countrey be for them) are fedde and maintained with little coſte, feeding themſelues all the yere long with ſuch meate as they finde abroade, except at ſuch time as the ground is couered with ſnow, when as you muſt of neceſſitie helpe them with a little meat. There is two ſortes of them, one wilde kinde, that is brought vp in Douehouſes, and is of colour, either blewiſh, white, ſpeckled, or dun, howbeit, the white is not good to be kept, becauſe they be ſoone deſtroied with vermine. In Italie, there are of this ſort, as bigge againe as ours, and are no ſo common in Flanders.

An

another sort more faultie and faine, and something more large of bodie, with rough feete, and commonly of colour white and sometime speckled and yellowish: this kinde is commonly kept in cities and townes, where the others cant not bee kept, and is fedde with meate at home, and because they are euer in danger of vermine, and rauening Birdes, they are still kept within doores, and alwaies fedde at home. This kinde the common people cal tame Pigions, or monthy Pigions, because they breede euery moneth, saue in the dead of Winter. Both these sortes are bounderous fruitefull, breeding commonly eight times a yeere (if the kinde be good) yea sometimes tenne, and twelue times: for in Egipt, (as *Aristotle* telleth) they breede all the winter long. And though Hennes are more fruitfull in laying of Egges, yet Pigions are more profitable by often bringing forth young: and therefore you must prouide you such breeders, whose bodies be great and faire, not too olde, nor too yong, of a good and perfect colour, and a fruitefull kinde. It behoueth him that will begin a Doue house, not to begin with the yong and little ones, but with the breeders; and to buy so many Cockes, as he doth Hennes, and to keepe them if he can, matched together of one nest: for if they be so matched, they will breede a great deale better. They bring forth commonly a Cocke and a Hennie together (as *Aristotle* writeth) and our experience sheweth it: for soone they begin to breede, if the weather be warme before. There is no birde fruitefuller then the pigion, and in foretimes she conceiueth, laieth, sitteth, and bringes vp, and that for the most part all the yeere, except (as I saide before) in Winter. She laieth two Egges, and when she hath laied the first, which is a Cocke, the next she layeth, which is a Hennie, the third neuer lightly commeth to good. Both the birdes doe alwaies sitte, the Cocke in the day, the Hennie in the night, they hatch in twentie daies, they lay after fiue treadinges. In Sommer they sometimes bring forth in fiue monethes three paire: for vpon the 19. day they hatch, and presently conceiue againe. And therfore you shall often find among the young Pigions, Egges some ready to hatch, and some laying: if there be no Cockes, the Hennes will tread one

the

the other, but their Egges neuer come to good, but are winde Egges: *Aristotle*, and *Theodorus* calleth them water Egges, wherof there neuer commeth any thing, and because the yong ones will breede at fiue monethes olde, we suffer the first flight to flie, to increase the breede: as being hatched in March, will breede againe in July, or August. Those that we meane to take for the Kitchin, or the Market, are best to be drawen at the latter time of the yeere, when they are worst able to defende them selues from the colde, and from Buzardes, and Crowes: the best for breede among all Foules, is the March breede. They that meane to fatte Pigions to sell them the dearer, do seuer them when they be newly feathered, and feede them with chawen white Bread twise a day in Winter, and thrise in Sommer: and such as be nowe harde pend, they leane in the pelt; plucking the feathers of their wing, and breaking their Legges, that they remoue not from their places, geuing the dammes good plentie of meate, that they may better feede them selues, and their young. Some (as *Gellius* writeth) do softly tie their Legges: for if they should breake them, they think the paine would keepe them from fatting: but this tying doth little good, for whilst they struggle to get them selues lose, the labour will keepe them from being fatte: but their Legges being broken, the paine will not remaine aboue two daies, or three at the vttermost, and will keepe them that they shall neuer stray from their places. Some vse onely to pinion them, but so shall they many times out, and become a pray to Vermine: and therefore it is good to bring them to the Kitchin, before they be full ripe. The vnfruitfull and naughtie coloured, and the otherwise faultie, ought chefely to be fatted, and must be crammed in such sort as you cramme Capons. Douehouses, or places for pigions, to builde in, are made after diuers manners: for the tame Pigions, and such as are seruiceable, they make in the highest parties of their Houses lying toward the South, certaine hollowe Vaines, and celles for them, such as *PVLLADIVS* hath described for his Pallen: and if the place doe not so serue, driuing in certaine Pines into the Wall, they lay vpon them frames of woods, with partitions in them, or els vpon

pottes to breede in, letting certaine Ledges runne from hole to hole, that they may the better come to their Nestes, and walke vp and downe in the Sunne. But the houses for the other wilder kind, because they containe great numbers, are built after a more handsome order, although vnder the eues of houses, and in steeples of Churches, you shal haue thousands breeding. *Varro* appointes the Douehouse to be built in this sort: A Tower adioyning to the house, & wel lofted and seeled aboue, with one litle doore in it, and foure windowes, answering the foure quarters of the Heauen, which windowes must be wel grated, so as they may giue light enough, and keepe out Vermine. All the walles within must be faire white limed, for with this colour is the Pigion wonderfully delighted: besides it must be well pargetted and plaistred without, specially about the windowes, so as neither Snake, Weesell, nor other Vermine may enter: the windowes must be so placed, as they may let in the Sunne at the Winter, hauing a hole of sufficient widenesse ouer against them, well netted & tunnelled, in such sort as the Pigions may easily flie out and in at, & yet not suffer any hurtfull bird to enter: for the Pigion taketh great delight in flying no more then abroade, whereafter she hath recreated her selfe, she commeth with ioy to her nest againe: as on the other side she mourneth, if she be restrained of her liberty. Round about the walles within you must haue little round holes, from the top to the bottome, wherein they may breede: *Varro* would haue them three handfulles in length, and ledged from hole to hole, for them to walke vpon. Some thinke it best to make your Holes of Loame, or Lime, and not of Bricke and Stone, as many do, because of the warmth. There be some that build their Douehouses vpon pillers in the middest of some Pond, or great water, both because they delight in water, and because they will haue them safe from vermine. The meat that they most delight in, is Tares, Fytche, Peale, Wheate, Millet: where these be not, you may giue them Spery, specially in winter. Rape seede, and Cockow by gathering and pecking vp these little seedes, they geat them selues a heate in cold weather. When you giue them meat, you must throwe it hard by the Walles: for that part is commonly cleanest

cleanesse from doung. And though *Varro* biddes you to sweepe and make cleane your Douehouses continually, and that the doung is good and profitable for the fielde, yet seeing this kinde of foule doth delight in places sprinkled with their owne doung you shall not neede to be carefull in cleansing of it. Looke well that they be not fraide, or disquieted with Gunnes, or noise of people, or other like, specially when they sitte: and if you haue occasion to go into the house, see that you do it about noone time, when they be abroad a feeding, and beware to knocke well before you come in. Some say, that it will cause them to loue the house, and allure others to come thither, if you sprinkle them with Commin, before they goe to feeding, or perfume the house with Sage, and Franckensence. Some haue an other experience for this purpose, and that is Potthardes beaten small and searced, mingled with the hearbe Coast, and good old wine, and geuen vnto them. Others take Barly flowre, sodden with dry Figges, and a part of Hony. *Cardan* teacheth this, as the best for this purpose, of Barly, or Millet, of Commin, of Coast, of *Agnus Castus*, of Hony, of old Lome, or Mozter, of good Muskadell, boile them all together, and make a stone of them to bee set in the middest of a house. *Tragus* teacheth to take the rootes of the Thistell, and to boile them with the pickle of Hearinges. *Constantine* out of *Didymus*, writeth of diuers other thinges for this purpose, which who so will, may trie. Looke well that they bee not destroied by the Hauke, or Buzard: the Hauke is a speciall enemie to this Birde, whose taking, *Varro* teacheth you in this maner: to lay a Pigion vppon the grounde, and to sticke, bending closely ouer her, a couple of Lime rods. There is a kinde of Hauke, that naturally is terrible to other Haukes, and preserueth the Pigion: the common people call it Castrell. *Columella* affirmeth, that if you take the young Castrels, and preserue them euery one in earthen vesselles well couered and plastered all ouer, and hang them in the corners of the Douehouse, it makes the Pigions haue such a loue to the house, as they will neuer forsake it. They haue many other aduersaries, Crowes, Dawes, and Owles, which all destroy the Pigions, specially when they breede. I founde of late in myne owne

Douehouse, an Owle sitting solemnly in the Nest vppon her Egges in the middest of all the Pigions, and hard by the house in an olde hollowe tree, I found peeces of young Pigions, that the Owles had brought to feede their young with: and though the Owle seeme to bee greater then the Pigion, by reason of the thicknesse of her feathers, yet will they creepe in at as little a place as the Pigion will; so small and little is their bodies, though they be bombased with Feathers. Against Weesels, Stoates, and such like, *Palladius* would haue you hedge the Douehouse about with sharpe prickly branches void of leaues, as Gorse Bryers, and such like, as they dare not passe through for pricking. *Didymus* and others, doe bidde you hang greate branches of Rue all about the house, specially at the entrance of the doore, or to put wilde Rue vnder their winges, or to sprincle them with Rue: for this hearbe (as they say) hath a speciall force against such hurtfull vermine. Some say, that if a wolues head bee hanged in the Douehouse, it will driue away all hurtfull vermine.

MELLISSEVS. We haue heard enough of Pigions, I pray you proceede with such other Birdes as you keepe in the countrey. Keepe you any Fesantes here?

Phesantes.

CHENOBOSCVS. This kinde of Birdes (though they bee very seldome kept among the countrey people) yet of many curious and fine fellowes, for their rarenesse and daintinesse, they are brought vp, and kept. And because they benefite the keeper, and profite the Husband, (if the soile and countrey be for them) the olde writers haue placed the keeping of them, within the compasse of husbandrie. *Palladius* teacheth, that you must prouide such as be young and lustie, that were of the last yeares bringing forth: for the olde ones be neuer fruitefull. One Cocke is sufficient for two Hennes: they breede once a yeare, and lay to the number of twentie Egges, beginning in Aprill, and somewhere in March, but they are better to bee brought vp vnder a Henne: so as you set vnder one Henne fiftene Egges, obseruing the time of the Moone, and the number of the daies, as I tolde you before of the Henne. The thirtieth day they come forth: for the first fifteene daies must

feede

fede them with Barly floure tenderly sodde, and coled, vppon which you must sprinckle a little Wine. After you shall giue them Wheate, Grashoppers, and Antes Egges: let them not come neare the Water for catching the Pippe, which if they chance to haue, you shall rubbe they͛r bils with Garlicke stamped together with Tarre. They are fatted in thirty daies with Wheate floure, or Barly floure made in Pellettes, the Pellets must be sprinckled a little with oyle, & so put into their throats, you must take heede you put it not vnder their tongs, for if you do, you kill them: neither must you giue them any meate till you perceiue the first be digested.

PVLLARIVS. What say you to Turtle Doues, these are also brought vp and kept in some countries. Turtles.

CHENOBOSCVS. Columella affirmeth that Turtles will neuer laye, nor bring forth in the house, nor Partridges: and therefore they vsed to take them wilde when they were full ripe, and to seeth and fatte them in little darke romes like Pigions holes: the olde ones be not so good, as neither the Pigion is. In Winter you shall hardly haue them fatte, in Sommer they will fatte of themselues, so they may haue plentie of Wheate and Corne: the water must bee verie cleare and freshe that you giue them. They holde opinion, that the Turtle after he hath lost his mate, continueth euer after solitarie. But because there is greater store of Thrushes & Blackbirds, we care the lesse for keeping of Turtles. Though Thrushes & Blackbirdes be kept in diuers places: yet as *Plinie* saith, there is in no place greater company, then is taken in the Winter time in Germanie: that they were vsed for great dainties, appeare by *Horace*. Thrushes & Blackbirdes.

No daintier dish then is the Thrush,
Nor sweeter then the Tryp.

They are commonly dressed whole and not drawne, for their inward partes may well be eaten, so they be new: their Crops are commonly full of Juniper Berries, *M. Varro* writeth, that Thrushes were in his time at twelue pence a peice.

where they vse to keepe them, they also put as manie as they take wilde: among the others, that they brought vp before, by whose companie and fellowshippe, they passe away the sorrow of their prisonment, and fall to their feeding: for you must alwaies haue olde fellowes for the purpose, by whose example they may learne both to eate & drink. They must haue warme houses, as your Pigions haue, crossed through with small Pearches: for after they haue flowen about, & haue fedde, they desire to rest. The Pearches must be no higher then a mans height, so as you may easely reach them standing vppon your feete. The meate must bee cast in such places of the house, as lie not vnder the Pearches, for filing of it. *Columella*, and *Palladius* write, that vnripe Figges beaten and mingled with Wheate flowre must be giuen them, that they may eate therof their filles. *Aristotle* maketh mannye kindes of them, among which he also putteth the *Colmous*, that feedeth vppon Grapes. Our Thrushes doe feede for the most part vppon Iuniper berries, which their Crops being opened (as I saide) doe shewe. They vse also in many places to keepe Quailes, which is rather a Birde of the earth, then of the aire, (as *Plinie* saith) but Quayles. because they feede vpon Elebor, and venemous seedes, and besides are vexed with the falling sickneſſe, many doe marvaile (as *Athenaus* writeth) why they bee so greatly esteemed. They say, their yong must bee fedde with Ants, and Emets Egges, as the Partrige. It is thought, that bee flieth ouer into other Countries in the Winter time, as the Crane, and the Storke both, following for their guide the oldeſt Quaile, called the mother Quaile.

PVLLARIVS. You haue forgotten one noble and goodly foule, that is vsed to be brought vp in the husbandmans ponds, Lakes, and Riuers, I meane the Swanne.

CHENOBOSCVS. You saye truwe: for this Byrde is The swan commonly brought vp in the lowe countries, and kept in great numbers in Lincolnshire, a Country replenished with Gentlemen of good houses, and good house keepers. And *Athenaus* alledging the auctoritie of *Aristotle*, accounteth this Foule to bee verie fruitefull, and of great stomacke, so much, as it is thought

thought they dare geue battaile to the Egle. They are bredde and kept (as you well saie) in Lakes, Riuers, and Fishponds, without any charge at all, and doe greate good in the Riuers by plucking vp the weedes, and other annoyances: for the excellencie of his downe, and daintinesse of his flesshe, hee is greatlie esteemed. There is one excellent kind of them, that taketh his name of the good watche that hee keepeth, and is alwaies cherished and kept in the Ditches of Cities, and Fortresses, for his greate faithfulnesse in geuing warning. They bee kept almost in like manner as Geese are, but that they vse to sitte longer, sitting a whole moneth, or there aboutes: they bring forth seeldome aboue eight, and so manie did my Swannes bring mee, and sometime fiue. They make their Nestes hard by the water of Sedges, Weedes, and like stuffe: their young ones they carry streight into the Riuers. If the Lakes and streames be frozen in Winter, you must house them. This Bird is counted among such as liue longest, foreshewing her owne death, as *Plato* and *Martiall* witnesse, with a sweete and lamentable song. Thus much concerning my profession I haue tolde, I trust you that bee my frendes, will take it in good part, and now *PISCINARIVS* I resigne my place to you, to whose turne it is come.

PISCINARIVS. It falleth out in good order, that from talking of Water Foules wee should come to entreat of Fishepondes, and Fish: although I doo meane to entreat largelyer both of keeping and taking of Fishes in my *Halientycks*, but because the husbandes house, both for watering of Cattell, and other vses, can not be without Ponds, and Lakes, and that euery house is not so seated, as it hath errable ground about it, it is lawfull for the Husband to make his best aduantage of his Ponds, and Waters. The Noble menne and Gentlemen of Rome, were wont to builde about their Houses faire Fishe Ponds, and many times satisfied herein their pleasure, with exceeding cost and expences, as *M. Varro* writeth, of the sumptuous and costly Fishepondes of *Hortensius*, *Hircius*, and *Lucullus*. *M. Cato*, when he had the wardship of *Lucullus*, made foure hundred pound of the Fishe in his Pond. The same

Of Fishe-ponds.

Varro maketh mencion of two sortes of Fishponds, the one of sweete water, the other salt, the one amongst the common people, where the springes feede them, and of greate profite, the other neare to the Sea, where *Neptune* doth yelde them both store of water and Fishe: for examples, may serue the Fishponds of *Hortensius* which rather pleased the eye, then the Purse. The best making of Pondes, is either by the Sea, as *Lucullus*, who to let in the Sea into his Pondes, made a passage through the middest of a greate hill, whereby he thought him selfe as greate a Lorde of Fishe, as *Neptune* him selfe: or els to haue them feede from some greate streame or Riuer, that may bring in both water and Fish, which by Fludde or Sluse, may let in alwaies fresh water, not suffering the olde to corrupt, but alway refeshing it, and bringing more Fishe. The nert in goodnesse, are those that are feede with pipes or secrete passages vnder the ground, and may be let out againe by sluse, which Sluses must so be made, as when you list, you may let the water into your Peddowes, to make them more fruitfull, as is to bee seene in the Countries of the *Swytches*, and *Heluetians*, and in many other places. And therefore the waters (as I said) must be well enclosed with good Bayes, Bankes, and walles, that they may be able to abide the rage of the fluds and the water. The worst & last kind, is such as are made in lakes, standing Poles, and Raine waters. These kinde of Pondes, though they bee the worst, by reason of their vncleane stinking and corrupt water, yet where there is no better, are to be made account of: for though they be not the holesomest for keeping of Fishe, yet they yelde some commoditie, and are most necessary about the house, either for watering of Cattell, keeping of Geese and Duckes, and washing, and other like vses: but if so bee you can make them either by the Sea, or neare some greate Riuer, so as the Water may bee let in and out at your pleasure: and whensoeuer you open the Sluses to let out the water. Be sure that you haue them well grated, that the Fish can by no meanes passe through, and let the passages, if the place will suffer it, be made on euery side the Pond: for the olde water will best voide, whensoeuer the streame bendes, the

currant

currant lie against it. These Sluses or Passages, you must make at the bottome of the Pondes, if the place will so serue, that laying your leuell with the bottome of the Pond, you may discerne the Sea, or Riuer, to lie seuen foote higher: for this *Columella* thinkes, will be a sufficient leuel for your Pond, and water enough for your Fish. Howbeit, there is no doubt, the deeper the water comes from the Sea, the coler it is, wherin the Fishes most delight. And if so bee the place where you meane to make your Pond lie leuell with the brim of the Sea, or the Riuer, you must digge it nine foote deepe, and lay your Currant within two foote of the toppe, and so order it as the water come in abundantly: for the old Water lying vnder the leuell of the Sea, will not out againe, except a greater rage come in: but for the Pond that is subiect to the fludde and the ebbe, it is enough if it bee but two foote deepe. In the bankes and sides of these Pondes, you must haue Bushes and Creeke holes, for the Fish to hide them in from the heate of the Sunne: besides, olde hollowe trees, and rootes of trees, are pleasant and delightfull harbours for Fish. And if you can handsomely conuay them, it is best to bring from the Sea, little Rockes with the Weedes and Mosse vppon them, and to place them in the middest of youre Pondes, and to make a young Sea of them, that the Fishe may lightly knowe of theyr imprisonment. About Turwan in Fraunce, and in other places, you shall finde in Loughes and Rayne Waters, euen in the wildernes and Heathes, great abundance of Fishe. In diuers places of the lowe Countreys, where they haue their Pondes fed with the Riuer, which they may chaunge at their pleasure, they so order them, as they be either enuironed, or deuided with deeper Ditches, wherein the Fishe doth liue in the Sommer time: and the rest of the ground betwixt the Ditches, the water being voided and kept out by Sluses and Bankes, is sowen with Sommer Corne, and after Harueste, the water let in againe, whereby the ground being wonderously enriched, doth yelde greate Croppes of Barlie, and Sommer corne, and (as the Poet saith) for the land, so may be said for the water, *Not euery ground for euery seede*, but regarde must be had, what to euery ground is meete. The Reuenues

keepe

keepe in their Ponds Lampreyes, Oysters, Luces, Mullettes, Lampoorns, Guylthedes, and all other Fishe besides, that are vsed to be kept in freshe waters. Ponds for Oysters, were first deuised by *Sergius Orata*, at the Bayes, about the time of *L. Crassus* the Orator, before the Battaile of *Marsie*, not so much for delicatse, but for his commoditie and gaine. Cockes, and Mulles, were kept in Ponds by *Fulvius Hirpenus*. Howsoeuer, diuers Fishes delight in diuers places. The best Pikes and Luces, were thought to be in the Riuer of *Tyber*, betwixt the two bridges: the Turbotes, at *Rauenna*: the Lampreyes in *Sicyll*: so Riuers, Lakes, Poles, and Seas, in some places haue better Fishe, then in others. Whereto to returne to my Fishponds from whence I came, neither may all sortes of Fishes bee kept in euery one, for some sortes are Grauellers, delighting onely in Grauellie, Stonie, and Sandie Waters, as Menowes, Gudgins, Bulheades, Ruffes, Crowtes, Perches, Lampoorns, Crenithes, Barbils, and Chenins. Others delight againe in Muddie places, seeking euer to lie hid in the Mudde, as the Tench, the Ele, the Breame, the Carpe, and such others. Some againe delight in both, as the Pike, the Luce, the Carpe, the Breame, the Bleake, and the Roach. The Grauelly Fishes, specially the Menowes, are ingendred of Shéepes doung, layed in small Basketes in the bottome of a Grauellie Riuer. The Luce, or Pike, groweth (as likewise doth the Carpe) to bee great in a short time, as in three or foure yéeres, and therefore in such Ponds as haue neither the Sea, nor Riuer comming to them, wee vse euerie fourth, or third yeere, to draw the olde, and to store them with yong. And in these parts we cheefely store them with Carpe, hauing small Ponds, and Stewes for the purpose to keepe them in, so as you may come by them at your pleasure. Thus much I thought good to declare vnto you touching my profession, let vs now see what you (*MELLISSEVS*) can saye for your Bées, and your Pony.

Bees. *MELLISSEVS*. Because I will not haue our discourse of husbandry depriued and maymed of such a profitable member, whose life may in all places, be they neuer so barre-

ren,

rent be had, I thinke it good as a conclusion to the whole, to shewe you for my part, the manner of keping and ordering of Bees: for the good husband by cherishing of them, picketh out many times a good peece of his liuing, yea the poore soule of the Countrey that hath no ground to occupie, may raise hereof and that without charges a great commoditie. *Merula* reporteth, that *Varro* had yeerely for the Rent of his Bees, a thousand gallons of Hony: and that in a house in Spaine, hauing not passing one Aker of ground to it, hath yeerely beene made of the Bees, foure score pounds worth of Ware and Honie. This little poore creature the Bee, doth not onely with her labour yelde vnto vs her delicate and most healthy Honey, but also with the good example of their painefull diligence and trauaile, encorageth man to labour and take paines, according to his calling: in such sorte, as it seemeth the almightie and most excellent maiestie, hath of all other specially created this little poore creature, for the benefite and commodity of man: by whom, besides the commoditie of the Honey and Ware that they make, wee might both take example to spend our life in vertuous and commendable exercises, and also to honour and reuerence the wonderfull bountie and goodnes of the most gratious LORD shewed towardes vs, in the creation of this final and profitable Woorme. They are continually busied in labouring, they shewe great cunning and workemanship in their trauailes, they haue alwaies amongest them the liuely Image of a perfite common wealth, they yelde obedience to their Prince, not liking the gouerment of sundry heads, but loue to be ruled by one: eache one of them laboureth and trauaileth in his charge, in so much, as the wisest Gouernours and Councellours in Common-weales, haue taken the Bees for their Patterne in chosing of Princes, distributing of Offices, rewarding of vertues, and punishing malefactours. *Varro* did alwaies call them the birdes of the Muses, and *Virgill* with wonderfull colours, doth eloquently set forth the Bees, their Common weale, Pallaces, buildinges, Cities, Lawes, manners, warres, and trauailes, supposing them to be partakers of reason, and that they haue some instinct from aboue, in that they so neare resemble the

Industrie of Bees.

Bees their common-weales.

The birds of the Muses.

mindes

mindes of men, yea manie times excell them, touching their obedience to their Prince.

Virgil. *Nor Egypt in his Prime, nor Lydia large and wide,*
Ne yet the Parthian people great, nor all the Medes beside
Do so, their king obey, who being safe and well,
Their minds are all togither one, he onely beares the bell,
On him they cast their eies, and gard him day and night,
And oft they beare him on their backes, in his defence they fight.
But if he chance to die, then all is dasht and done:
Their Cosmes a sunder downe they teare, and all to mine run.

If the king bee taken, the whole Swarme is had: if he be gone, they disperse themselues abroad, for they can not liue without a king, hating as well the bedlesse gouernment, as the subiectiō to many heads. If the king, or (as we terme him) the master bee die, the whole Swarme droupeth and mourneth, they straightwaies cease from gathering of Hony, they sturre not abroade, but onely with a heauie and sorrowful humming, they swarme and clusser togither about his bodie. The nature surely of this poore creature is greatly to be wondred at.

Virgil. *They onely of their broode haue common care,*
And neighbour like their houses neerely stand:
And ruled are by lawes that none do spare,
Alone they know their home and natiue land,
And mindfull of the stormy Winter neere,
In Sommer get, to liue by all the yeere.

Their Princes Pallace is sumptuously built, in some seuerall part of their Hiues, being mounted aboue the rest, which if you happen to breake, you destroy the broode. They liue all as if were in a Campe, and duely keepe their watch and ward, working together, and oftentimes sending abroad their Colonies, they are warned at their Captaines appointment, as it were with the sound of a Trumpet, by which they know both their times of warres, and truce: they ward all the day time at their

their gates in warlike manner, and haue great silence in the night, till one of them in the morning humming out the discharge of the watch: they get them abroade to their businesse, as the Poet hath eloquently expressed.

Together all they quietly do lie,
Together all they toile with equall might:
And in the morning foorth together flie,
And home as fast they come againe at night.
Where as they lay their wearie limbs to rest,
And trim their wings, and set their legs in frame:
Till euery one himselfe hath throughly drest,
Then singing at their doores a while they game.
Till one giues warning for to go to bed,
Then downe they lay to rest their sleepie head.

Virgil. (? Spenser)

For when the sleepie time of the night comes in, they make lesse and lesse noise, till one of them goeth about with the like sound that he gaue in the morning, setting as it were the watch, and giuing them warning to go to rest: at which time they all suddenly holde their peace. In the morning (as I saide) at the discharge of the watch, they romme straight to the gates, but fly not abroad, except they see the weather will be faire: wherof by nature they haue perfect vnderstanding.

Nor from the Hiues, if likely it be to raine,
They far do stray, nor trust they will the skie:
If that the Southwind blowe, but still remaine.
At home, or busied be with waters nie.
Short flytes they make, and when such stormes they see.
They beare about the smallest stones they finde:
And as the Botes in studdes that balast be,
So with the same they counterpaise the winde.

Bees foreshewers of stormes.

Being loded, they flie with the wind: if any tempest suddenlie arise, then counterpaise themselues with little stones, flying in the winde as neare the ground as may be: their labour, both

both at home, and abroad, is certainly appointed. They labour at the first, within the compasse of three score paces about the Hiue, & when the flowres there haue been sufficiently wrought, they send abroad their discouerers to finde out more foode. And when they fall all together to their businesse, some worke the flowers with their feete, others cary water with their mouths, and droppes in their little fleeces: the yong lustie fellowes labour abroad, the elder at home. Those that goe abroade, dos with their forelegges lade all their Thighes, which nature for the nonce hath made roume: thus being loaded, Legges, Head, Backe and all, as much as they may beare, they return home, where there waighteth commonly three or foure at the dore to vnloade them. Within all this while are some laying in order, some building, some making cleane, and some making readie their meate: for they fede not seuerally, for feare of beguiling one the other. They frame their houses archwise within the Hiues, with two passages, so as they may enter one waye, & go out an other. Their Coames that they make are wrought full of holes, which holes (as *Varro* saith) are their Celles, or lodgings, made euery one fiue square, according to the number of their fete: these Celles they dos all fill with Honie, filling euerie one in a day or two. These coames are fastned to the vpper part of the Hiue, and hang a little vppon the sides, not cleauing to the Hiue, being aboue couered, naiue rounde, according to the fashion of the Hiue, as both *Plinie* reporteth, and I shall hereafter shewe you, when I speake of the framing of the Coames. The Coames are kept vppe from falling, with small Pillers and proppes belowe, so built as they may go rounde about to repaire them. The three first lofts of their Celles beneath, are left emptie for feare of the Hiue; the vppermost are as full as may be. Such as are loiterers and idel vagabondes amongst them, are noted, and punished with death.

The punishment of loiterers.

Some range for foode and ply the feeldes abroad,
Some still at home do labour busilie:
And rounde about with mare the Hyues do lode
Which from the gumbus they plainfully dewy.

The

The first foundations for the Combes they make,
And clammy cleauing Wax they fasten by:
While others of their broode the charge doth take.
And fosters vp the seede that shall supply.
Another sort doth worke the Hony pure,
And filles the Celles with liquour that you see:
And others are appointed to the doore,
To looke abroade what weather is like to be.
Or to vnload such as haue laboured well,
Or els to driue the drousie Drone away:
Their labour smokes and all of time doth smell.
The Hony sweete that in their Combes they lay.

And a little after.

The great do guide the Hyue,
Make fast their Combes and Pallaces contriue.

CHANOBOSCVS. Of the two Rhines, traualle, worke manship, and good order of this little creature, you haue sufficiently spoken, it nowe remaines that you declare vnto vs their seuerall kindes, their keeping, and their ordering.

MELLISSEVS. Aristotle maketh many sortes and kindes of them, whereof he counteth the short speckled and well knit, to be best and aptest to thriue, the long ones like Waspes, the thirde, the kind that they call the Drone, with a very large bodie: the fourth, the Droue, being bigger then all the reste, wanting both his sting, and courage to labour: and therefore they vse to make at the entries of their Hiues small Grates, wherein the Bee may enter, but not the Drone. And the same *Aristotle* in the Chapter before saith, that there are two kindes of kings, or maister Bees, the one of a golden colour, which is counted the best, the other black, and not so party coloured: they be twise as bigge as the other Bees, the Taygles of them as long as one and a halfe of the other, they are called of some, the mother Bees, as the chiefe breeders, because the yong of the Drones are bred in their bodies, but the other Bees neuer.

The kindes of Bees.

The Theefe.

The Drone.

Breeders.

Virgill

The best sorte of Bees.

Virgill following herein *Aristotle*, doth most commend the little, long, smoothy, and faire Bée, and making mention of two sorts of kings, the lowser wherby he shall do no harme.

The shape of the king.

Destroy (saith he) and let the other liue,
Whose golden hewe doth glister in the eie:
And decked with glistring skales faire sheene doth gine,
Of farre more grace and farre more maiestie.
With lothsome looke the other doth appeere,
And dragling drawes his taile with heauy cheare.

And as there is two sortes of kinges, so is there of the other Bées.

Some ougly seeme, and some againe doe shine,
Bedasht with drope of golden colour fine.

Being milde and gentle: for the Bée the greater hée is, the lowsie hée is, and if he be angry, and fierce, and round, hée is lowsie of all. And because (as I said before) the best are easily to be meddled withy, both the good and the badde are alike changeable, and require like tendraunce, and speciall heede to bée had that you meddle not the badde with the good: for lesse will the encrease of your Hony be, & sum of your fauourites, be ill matched. You may liege your Hiues (which I like) in three maner of wayes, either by buying them, taking the swarmes, or making them by arte. Buying may serue you best, if you be of the kind and shape that I told you of, and sée them before you bie them, that the swarmes be hole and greate, which you may iudge by hiking into the Hiues, and if you can not be suffred so to doe, you may gesse it by their fashion as it lies by, for you sée great numbers cluttering at the doore of the Hiue; and if your heare a great busking and humming within, (if they be all at rest) putting your lippe to the mouth of the Hiue, and blowing therein, you shall easely perceaue by their answearing sound, whether their number be greate or no. In buying of them besides, you must looke whether they be olde or lustie: the signes of

What to be considered in buying of Bees.

their

their being in health (as shal be shewed when I speake of their diseases) is, if their Swarmes be great, them selues faire, and wel coloured, and worke lustily. Againe, a token of their not being well, is if they bee heary, looke lothsomely, and dastelie, except at such time as they labour: for then they ware leane and roffe, with extreame trauaile. You must make your coniecture likewise by their age, such as are not aboue a yere olde, looke faire and smoth, and shine, as if they were oiled: the olde ones are both in sight and feeling, roffe and rugged, and by reason of age, wrinkled: which neuertheles for cunning in making their Coames, experience, industry, and skilfulnesse in the weather, doe farre passe the others. In any wise see that you bie them rather from your next neighbour, then from a strange Country, or far off: for they many times perish by change of aire, or shaking in the carriage. And if you bee driuen to carry them farre, take heede you neither iogge, nor iumble them: the best way to carry them, is vppon a mans shoulders, and that in the night time, suffering them to rest in the daie, and pouring into them such sweete things as they delight in, and keeping them close. It is better remouing them in the spring, then in Winter: for they doe not so well agree with winter. If you carry them from a good place to a barraine, they wil straightwaies bid you farewell, and forsake their Hiues. When you haue brought them to the place where you meane they shall stand, if it be day time, you must neither open them, nor place them till it be night, to the end they may after the quiet rest of the night, go cheerefully to their worke the nert morning. Be sure to marke them well besides for two or three daies after, whether they go all out or no: for if they doe, it is a shrewde signe they will away. Some time, if the place be good, you shall assay to store your selfe with wild Bees: for although that Bees (as *Plinie* saith) can not be rightly termed either wilde, or tame, yet *Varro* calleth them wild, that breede in wild places, and tame, such as we keepe at home: and affirmeth the manner of keeping them to be diuers. There is great store of the wilde sort in *Sarmatia*.

Transporting of Bees.

The taking of Bees.

PVLLARIVS. They haue, that in *Liuonia*, and *Sarmatia*, (from whence is brought hither great store of Ware, and

Hony) the countrey people doe gather it in great abundance in hollowe trées, and delart places.

MELISSEVS. The greatest token of Bées, and Hony néere, is where they be in great numbers about the waters: for if you sée the number but small, it is a signe it is no good place for Bées: and if so be you sée they come in great numbers, you may soone learne where their stockes be in this sorte, as *Columella* and others haue taught. You shall carry with you in a saucer, or such like thing, some redde colour, or painting, and standing néere to the springes, or waters thereaboutes, as fast as they come, touch them vppon the backes while they are a drinking, with some little strawe dipped in the colour: and tarrie you there, til such time as you sée them returne. If the Bées that you marked doe quickly returne, it is a token their houses be not far off, if it be long ere they come, it shewes they dwell farther off: wherfore you may iudge by ỹ time. If they be néere, you shall easely finde them, if they be farre off, you shal come to finde them in this sort; take a pece of a Réede, or a Ken, with his knottes and iointes, and making a small hole in the side, powre into it either Hony, or some sweete thing, and lay it by the water: and when you sée the Bées haue found it, and entered the hole for the sauour of the Hony, stop you the hole with your thombe, and let but one go out at once, whose course you shall followe, as farre as you can sée him: and this shall bring you part of the way. When you can no longer sée him, let out an other, and follow him, and so an other, one after an other, til you come to the place. Others vse to set some little vessels with Hony by the water: which, when some one Bée or other hath hapned to taste, she giueth straight knowledge to her fellowes, whereby by their flying in number, they come to finde out their dwellings. If you finde the swarme to be in some such hole as you cannot come at them, you shal driue them out with smoke, and when they be out, bring them downe with the ringing of a lattin bason, so as they may settle vpon some tree, from whence you shall shake them into your Hiue. If the swarme be in some hole aboue in the branches, you may sawe off the branch handsomely, and couering it with a white cloth, place it amongest your

To finde out the Bees.

your Hiues. If they bee in the bodie of the Tree, then may you softly sawe of the Tree aboue the Bees, and afterward, close vnderneath them: and being couered as before, carrie them home, stopping well the chinkes, and riftes, if there be any. Hee that seeketh the Bees, must beginne in the morning, that hee may haue the whole day before him to marke their laboring. Thus farre of the kindes of Bees, and getting of them: nowe will I shewe you of the placing of them, ordring and keeping of them. The place for your Bees and your Hiues must be so chosen, as they may stande quietly, and secret, standing specially in such place, as they may haue the sunne in winter, and in the spring time alway at the rising, and such as is neither too hotte, nor too cold: for the excesse of either, doth hurt them) but rather temperate, that both in Sommer and Winter, they may haue moderate warmth, and holsome aire, being farre remoued from the companie of either man, or beast. Standing for Bees.

Where neither wind may come, whose blasts forbids
Them bringing home their loade, nor Sheepe, nor wanton Kids.
To spring among the flowers, nor warding best,
Shake of the dewe, and trampling spoile the rest.

For they most of all delight in quietnesse: beware beside, that there be no hurtfull creatures nere them, as the Tode, that with his breath doth both poison the Bee, and also drawe the to him, the Woodpecker, the Swallowe, the Sparrow, the Stork, Spaidars, Harnettes, Butterflyes, Serpentes, and Mothes. What vermine annoyeth the Bees.

Dryue from thy Hyues the hurtfull Lysart greene,
Keepe, Throstels, Hennes, and other birdes vntreme:
And Progne, on whose breast as yet is seene,
The bloodly marke of hands that Itys slewe.
All these destroy thy Bees, and to their nestes do beare,
Such as they take in flight, to make their yoong once cheare.

Of such thinges as hurt your Bees, I will hereafter speake more, where I shall shewe you of their diseases and harmes: in

The valley better for the Bee, then the hill.

the meane time I will go forwarde with the placing of them. The place where they shoulde stande, woulde rather be in the valley, then very hie: but so as the rebound of no *Ecco* doe hurte them, which sounde is verie noisome vnto them: so shall they flée with more ease and spéede to the higher places, and come laden downe againe with lesse trauaile. If the seat of the house will so suffer, it is good to haue your Bées stande neare your house, and to be enclosed with a hedge, or a pale: but on such side as they be not annoied with the sent of sinke, priuie, or dounghill. The best standing, is within the sight of the maister, by whose presence they are safest kept. For their better safety (if you feare them) you may sette them a yarde or more from the ground, enclosing them with little grates left open against euerie Hiue, or so lettised with stone, as the Bée may easely come out and in, and scape both Birdes and Water: or if you list, you may make a little house by for the keeper, wherin you may lay your Hiues for your swarmes, and other necessaries méete for your Bées, setting neare to the Hiues some shadowing Trées for them to swarme vpon, according to the Poets aduise.

And plant the Date tree neare, or pleasant Oliue tree
That with their floury branches sweet, thy Hiues may shadowed be:
That when the captaines yoong lead out their lusty swarmes,
The pleasant shade may them allure, to shun the greater harmes.
Not needing for their ease, in places farre to roame,
When as they may more safely sit, and better speede at home.

Faire water necessarie for Bees.

If it may be, let them haue some faire spring neare them, or els some water conueied in pipe: for without water they can neither make Hony, Ware, nor bréede vp their yong: and therfore saith the Poet.

Haue fountaines sweete at hand, or mossy waters greene,
Or pleasant brooke that passing through, the meades is sweetely seene.

And straightwaies after.

If either standing poole be neither to them nie,
Or running streame with hastie course, their dwellings passeth by,
Cast bowes of Willowe crosse, and mighty stones withall,
That may preserue the fainting Bee, that in the flud doth fall.

Rounde

Round about the Beeyard, and neare to the hiues, set hearbes, plants, and flowres, both for their health, and profite: specially such as are of the sweetest and delicatest sauour: as *Cithysus*, Thime, *Cassia*, Rosemary, Sauery, Smallage, Violettes, Sage, Lauender, Myrrhe, wilde Marierum, wilde Thyme, Balme, swæte Marierum, Saffron, Beanes, Muskardsæde, Poppey, Mellilot, and Roses. And if there lie Grounde neere it for the purpose, sowe it with Rape seede, and Beechwheate: for they wonderfully delight in the flowres hereof. *Plinie* writeth, that Bees delight greatly to haue byrnie flowres neare them: of trees, they most delight in these. The Pine, the Willowe, the Firre tree, the Almonde, the Peache, the Peare tree, and the Apple, and such as the flowres thereof be not bitter. Of the wilde sortes, the Terebinth, the Lentise, the Lindtree, the Cedar, and the Maltholme. The best Hony (as *Palladius* saith) is made of Time: the next of wilde Time: the thirde, of Rosemary. You must remoue from your trees, Yew tree, the Bore, and the Cornell: *Plinie* would also haue the Oliue awaye. Banish also all the kindes of *Sporge*: for with that, as also with the flowres of the Cornell, they fall into a Flixe and die. Besides, you must suffer no Wormewood, nor wilde Coucumber, to grow neere them: for they both destroy the Bees, and spoile the Hony. And because the flowre, or fruite of Elmes doth specially hurt them, therfore in such partes of Italy where plentie of Elmes growe, the Bees doe not long continue. Touching your Hiues, they are made of diuers fashions, according to the maner of the Countrey. Some are made rounde, some square, some three foot in height, and one in bredth, made very narrowe toward the top, least the Bee shoulde ouerlabor themselues in filling of them. Some make their Hiues of Lanterne horne, or Glasse, to the end (as *Plinie* saith) that they may viewe the maner of their working. *Varro* maketh mention of earthen Hiues well plaistred within and without with good Ore doung, so as the roffenesse and ruggednesse cannot displease them: but for all that, the earthen Hiues be the worst that may bee, because in Sommer they bee too hotte, and in Winter to colde. The best Hiues, are those that are made of Corke wicker, or rindes of trees, because they keepe out both colde and heate: the next

Hearbes that Bees delight in

Hearbes noisome to Bees.

Of the Hyues.

are such as are made of Strawe and Bentes matted together, two foote in breadth, and so much, or more, according to the number of your Bees in height. In some places they make them of one peece of wood, cut and hollowed for the nonce, or of ioined bordes, fiue or sixe foote in height, and these neither are too hotte in Sommer, nor to cold in Winter. Of these wodden Hiues, the best are those that are made of Figge tree, Pine, Alhe, and Walnutte, of such length (as I tolde you) and a cubite in breadth. Besides, they woulde be couered with either Lime, or Ore doung: for so (saith *Florentine*) you shall keepe them long without rotting. You must also boare them through slopewise, whereby the winde gently entring, may dry vp all Cobwebbes, or such like noiances. You must alwaies haue good store of Hiues lying by you, that may be remoued and easily carried where you list: for the fixed, or standing Hiues, be discommodious, as which you can neither sell, nor remoue: though *Celsus* seeme to commende the standing Hiues, because they are neither subiect to stealing nor burning, being made of Bricke, or Loame. Your Hiues (as *Columella* out of *Celsus* doth teach) must stande vppon some table of stone, a yarde from the grounde, and so much in breath, so smothed and plaistered, as neither Toade, Euette, or Snake may creepe vppe: and in such order they must be placed, as there may be betwixt euerie one a little wall, or partition, being open both before & behinde. If you haue no such partitions, then place them so, as they be a prettie way distant one from the other, that in dressing and looking to any one of them, you shake not, nor hurt the other: for a little iumbling doth some marre al their houses, and many times spoile the Bees. It is enough to haue three rankes of them, one aboue the other: for the keeper shall haue enough to doe, to ouer looke the vppermost. The part where the Bee doth enter, must stande a little lower then the hinder part, so as the raine can not run in, and the water (if there be any) may easely voide. And because colde doth more annoy the Bee, then heate, you must arme your Hiues well behinde, against the hurt and bitternesse of the North wind, and let the sunne come bountifully to them in the Front. And therefore it is best for you to make the holes where they come in and out, as small as

How you must place your Hiues.

you

you may, that they suffice onely for the liuelyhood of the Bée, partly for auoyding of cold, and partly to keepe out Ewets, Beetels, Butterflies, Battes, Mothes, and such other hurtfull vermine, that would otherwise destroy the Coames: wherefore it is good you haue two or three such small holes together in euery Hiue, for the commoditie of the Bée, and restraint of the enemie.

PVLLARIVS. Well, I pray you let vs know when the Bée beginneth to labour, and when he ceaseth.

MELLISSEVS. Because I haue declared vnto you before their toile, their diligence, and order of their trauaile, I will nowe likewise shewe you what time they begin to labour. In the winter time, from the setting of the seuen starres, til the beginning of the spring, they keepe their houses, and come not abroad, by reason of the cold: in the spring, they come straight abroad, and from that time forward (if the wether let them not) they neuer rest day. First of all, they frame their Coames, and Wax, that is, they make their houses and chambers, wherof they make so many, as they thinke themselues able to fill: then fall they to breeding, and last of all, to making of Hony. Their Wax, they make of the flowres of Trées and plantes: their Hony, of the gummes and clammineſſe of trées that are glewy, as Willowe, Elmes, Reede, Iuice, Gumme, and Rozen: *Aristotle* saith, they make their Coames, of flowres, their Wax, of Gummes, and their Hony, of the dew of the ayre, that falleth chéefely at the rising of the starres, and that there is no Hony made before the rising of the seauen starres, and their Coames of flowres, and that the Bées doe not of themselues make the hony, but onely geather the honied dewe that falleth, because the keepers finde the Celles to be filled in some one, or two daies: and that the Hony being taken away in the ende of Sommer, the Hiues are not found to bée furnished againe: though there be flowres enough at that time. This, and much more hereof (saith *Aristotle*) whom *Plinie* following him, affirmeth Hony to be made of the ayre, most of all, at the rising of the starres, chéefely the Doggs shining out early in the morning: therfore you shal find in the morning betimes, the leaues of the trées bedewed with Hony, as you shall likewise haue the

When the Bee resteth. The beginning and order of his traualle.

Apparayle, Peare, and Bearues, of ſuch as haue beene early abroad. In the morning, our common people call it Manna, or Hony dewe, cleauing to the leaues before the riſing of the ſunne as it were ſnowe, or rather candied Suger. Whether it bee the ſweate or excrement of the Heauens, or a certaine ſpittle of the ſtarres, or a iuyce that the ayre purgeth from him ſelfe, how ſo euer it be, I would to GOD it were ſuch as it firſt came from aboue, and not corrupted with the vapours and dampes of the earth. Beſides, beeing ſucked vp from the leaues by the Bees, and digeſted in their Mawes (for they call it vp at their mouthes) and alſo diſtempered with the ſent of the flowres, ill ſeaſoned in the Hiues, and ſo often altred and tranſiourned, loſing much of his heauenilhe Vertue, hath yet a pleaſant and a ſpeciall celeſtiall ſweeteneſſe in it. The beſt Hony is of Time (as I haue ſaide before) and good like wiſe of *Cithiſus*, of the Figge tree verie pleaſant: *Varro* ſaith, they take not their ſuſtenance, and their Hony both from one. A greate part of their foode is water, which muſt not bee farre from them, and muſt be verie cleane: which is greatly to purpoſe in making of good Hony. And when euerie ſeaſon ſuffereth them not to be abroad, they muſt at ſuch times bee fedde, leaſt they ſhould then be forced to liue all vppon the Hony, or to leaue the Hiues emptie. Some geue vnto them, Water and Hony ſodden together in little veſſels, putting into it Purple woole, through the which they ſucke it, for feare of drinking too much, or drowning themſelues: others, drie Figges, either ſtamped by themſelues, or mingled with water, or the droſſe of grapes, or Reaſons mingled with ſweete wine, and toſtes made therewith, or with Hony: yea I haue ſeen ſome vſe (but in my fanſie without reaſon) to giue them Bay ſalt. Moreouer, as the Bees require great loking to continually, and their hiues daily attendance, ſo moſt of al they craue diligent regard, when they are about to ſwarm, whereunto if you haue not a greate good eye, they will bidde you farewell, and ſeeke a newe Maiſter. For ſuch is the nature of Bees, that with euery Prince, is bredde a common wealth, which as ſone as they are able to trauaile, doe as it were diſdaine the gouernment and fellowſhippe of the olde Bee, which moſt happeneth when the ſwarmes be great and luſty, and that

Manna.

The beſt Hony of Time.

Bees, their winter foode.

Going away of Bees, and the tokens thereof.

the

the old stagers are disposed to send abroade their Colonies, and therefore you shall by two tokens specially knowe, when the newe Princes with their people will abroad. The first, when as a day or two before they clusker and hang (specially in the euening) about the mouthe of the Hiue, and seeme to shewe by their comming out, a greate desire to bee gone, and to haue a kingdome and countrey by them selues: which, if you prepare them at home, they content them selues very well with it. And if the Keeper prouide not for them, taking them selues to bee greatlie iniuried, they depart, and seeke a newe dwelling. To preuent this mischiefe, *Columella* willes you to loke diligently to them in the Spring time about eight of the clocke, or at noone: after which hours, they commonly goe not away, and to marke wel their going out, and comming in. The other signe is, that when they are ready to flie, or going, they make a great humming and noise, as souldiers ready to remoue their campe. At their first comming out, they fly aloft playing vp and doune, as it were tarrying for their fellowes, till all their companie come. Yea, many times the olde inhabitantes, beeing weerie of their dwellinges, doe leaue their Hiues which is perceiued when they come so out, as none remaine behind, and presently mount into the aire, then must you fall to ringing of Pannes and basons, to feare, or bring downe the runawaies, who being amased with the great and suddaine noise, doe either presently repaire to their olde Hiue, or else knitte themselues in swarme vppon the branch of some tree neere to the place: then must the keeper out of hand be ready with a newe Hiue prepared for the purpose, and rubbed with such hearbes, as the Bee delightes in, or sprinckled with little droppes of Hony (I haue seene in some places vsed Creame) and so shaking them into the Hiue, and couering them with a sheete: let him leaue them till the morning, and then set them in their place. He must (as I tolde you before) haue diuers newe Hiues in a readinesse to serue the turne withall. And if so bee you haue no Trees nor bushes growing neere the Hiues, you must thrust into the ground certaine bowes and branches for the purpose, whereupon they may knit and settle them selues, and rubbe ouer the bowes with Balme, or such pleasant hearbes; that when they

(as

(as I say) knitte and settle, putting vnder the Hiue, and compassing them with some little smoake, you may cause them to fall into a newe countrey: for they will rather goe into a newe Hiue, then into an old: yea, if you offer them the Hiue that they came from, they will forsake it for a newe. Some of them will sodenly leaue the Hiue without any tarrying, which ỹ keper may perceaue, if he vse to lay his eare in the night time to the hiues: for about three daies before they goe, they make a great noyse, like souldiers ready to raise their campe: which *Virgil* noteth.

Bees delight in newe Hiues.

Signes of suddaine departing and remedies.

Their minds are easely knowne for such as stray,
The brassen sound commands to come away.
When through them, all a warning voice is sent.
That doth the warlike Trumpet represent.

And therefore when such noise is heard, they must be very wel watched, whether they come out to fight, or to flée, the keeper must be at hand: their fights, whether it be among themselues, or one Hiue with an other, are easely stickled.

A little dust cast vp on hie,
Doth ende the quarrell presentlie.

Or Honied water, sweet Wine, broth of Reasons, or any pleasant licour, wherein they delight, cast and sprinckled amongst them, doth straightwaies part them. The selfe same remedies makes two Princes of them, being fallen out, to bée quicklie good frindes againe: for when there happeneth many times to be in one Hiue sundrie Kinges, by whole dissention the whole number of the subiectes in the princes quarrels, goe togeather by the eares, you must by all meanes séeke to remedie it, least by ciuill dissention, the poore people be destroied. And therefore, if you perceaue them often to fight, your best is to kill the heddest of the dissention, and to appease the fury of the fighters, by those meanes that I told you before. And when the Marciall swarme is setled vpon some branch of a tré, loke if they hang al togeather like a cluster of Grapes, which is a signe, that there is either but one king, or if there bée moe, they be agréed: and then you shall not trouble thẽ, but take them into the Hiue, but if so be they hang in two or three clusters, like the pappes, or vdders of a beast, it is a signe there are diuers matter Bées that agrée not together: for which you shal search, where you se the Bées

Diuers kings in one Hiue.

to

to clatter most. Therefore annointing your handes with the iuice of Balme, or Beewort, that they may abide you, thrust in your fingers softly amongst them, & shedding the Bees, search well, til you haue found the ringleader of the dissention, whom you must take away. What the proportion & shape of the king is, I haue told you a little before, that is, somthing longer then the other Bees, and fairer wingged, of a fair & glistering colour, smooth, & without sting. Howbeit, some of them be shaghearde, and ill coloured, which are naught, & to be killed. *Let the best (as he saith) weare the Crowne,* who must himselfe also bee depriued of his wings, if he bee to bushe headed, and will alwaies be carrying his people abroade. So shall you with the losse of his sailes, keepe him at home spite of his teeth, while he dare not for want of his wings venture out of the doores, and so shall he keepe his people at home. *Didymus* writeth, that your Bees will neuer goe away, if you rubbe the mouth of your Hiue with the dounge of a new calued calfe. To the same end serueth it, if you shampe the leaues of wilde Diues, and Garden Diues together, and annoint the Hiues in the euening therewithall, or if you wash the Hiues and the walls with Hony sodden in water. When an olde stocke is come to a small number, and that there be not Bees enough to furnish the Hiue, you must supply the waste with a newe swarme, deliuering the king of the first swarme in the spring, so shall both the swarmes dwell together in amitie with their olde Parents, as shall be shewed you hereafter, where I meane to speake of repairing the stocke. The summer being past, ensueth the time for taking of Hony: to which Harueste, the trauaile of the whole tendeth. The time for gathering thereof, *Columella* teacheth to bee then, when wee perceaue the Drones to be driuen out and banished by the Bees: for, thence they *Dryue the drouishe Drone away*. This Drone is an vntimely birth, & an vnperfect Bee, but very like vnto the Bee, saue that he is bigger bodied, lying alwaies idle in the Hiue, not labouring himselfe, but feeding like a lubber of the sweat of his fellowes, yet serueth hee for the breeding and bringing vp of the yong: which when hee hath done, they thrust him out of the Hiue. *Varro* appointeth three seasons for taking out the hony: the first, at the rising of the seuen Starres; the second, in Sommer; the third,

The shape of the king.

To keepe the king at home.

Gelding, or driueing the Hiues.

The Drone.

Time for taking the Coames.

third, at the setting of the seuen starres: this signe is when the Hiues be heauie, and that they bee double furnished. You may make your coniecture by the Bées, when they make great noise within, and when you sée them stande daunsing and playing at their doores, as also if looking into the Hiue, you perceiue the mouthes of the Coames to be couered with a Hony slime. *Dydimus* thinketh it to be the best time for the first harueſt, the rising of the seuen starres, or the beginning of May: the second the beginning of *Autumne*: the thirde, the setting of the seauen stars, which is about October. Howbeit, these times be not alwaies precisely to be obserued, but according to the forwardnesse of the season: for if so bée you take the Hony before their Coames be readie, they take it ill, and presently leaue working. The time for gelding, or diuiding your Bées, is early in the morning: for you muſt not at noone trouble your Hiues. For this kind of gelding of your Hiues, you muſt haue two inſtrumentes for the nonce, a foote and a halfe long, and more: the one of them muſt be a long knife of a good breadth, hauing at the ende a bending crooke to scrape withall: the other muſt bée plaine, and verie sharpe, that with the one you may cut the Coames, and with the other scrape them, and deface out what soeuer Dregges or filth you finde in them. And if your Hiues be not open behinde, you shall make a smoke with *Galbanum*, or vile doung, being put into an earthen pan made for the purpose, small at the one end, from whence the smoake shal come, and broad at the other, from which you shall blowe vp the smoke from the fire, in such sort, as *Columella* sheweth you. This pot you muſt suffer at the first, to smoke into the Hiue, and afterward rounde about without, and so shall you driue them. He that medleth in this case with the Bées, muſt specially keepe himselfe from lecherie, and drunkennesse, and wash himselfe cleane: for they loue to haue such as come about them to bee as pure and cleane as may bée. They delight in cleanlinesse, so much, as they themselues doe remoue from them all filthinesse, suffering no filth to remaine amongst their labors, raking vp in heape together the excrement of their owne bodies, which in rainie daies, when they worke not abroade, they remoue & throwe out of the Hiue. If you set garlick by them, they wil fling al that come nére them.

Bees hate theeues and vncleane persons.

Their

Their anger is cheefely allwaged by the presence of those that vse to tende them, at whose comming they ware milder, beyng well acquainted with those that are their keepers. If there bee two swarmes in one Hiue, and agreed together, they haue two sortes and maner of Coames, euery swarm obseruing his own order, but all the Coames so hang by the roffes of the Hiues and sides, as they touch not the grounde where the Bees vse cheefely to walke, as I saide before in their building of their Coames. The fashion of their Coames, is alwaies according to the fashion of their Hiues, sometimes square, sometime rounde, sometime long as the Hiues are, in which they are fashioned as in a moulde. *Plinie* writeth, that there were Honie Coames found in Germany, of eight foote in length, but howsoeuer they be, you must not take them all out, but must vse discretion in taking of them. Amongst our people in the first, be harueſt (if I may so terme it) they vse with their croked knife, to pare away no more but the emptie Celles, till they come to those that bee full, taking good heede that they hurt them not: and this they doe in the spring. In the latter Harueſt, that is, at the ende of Sommer, they take the Coames full of Honie, in such sort (as I tolde you) burning the olde Bees, and alway kéeping and preseruing the yong swarmes. In the first taking, when the Meddowes are full of flowres, they leaue the fift part of the Coames behinde: in the latter harueſt, when winter approcheth, they leaue a third of their Coames, for the sustenance of the Bée. But this quantity cannot certainly be prescribed for all Countreies, but must be measured according to the aboundance or want of flowres. *Dionysius Thasius*, thinketh good to leaue them a tenth of their Coames in the Sommer time, if the Hiues be verie full, otherwise according to the proportion: and if they be emptie, not to meddle with them. *Plinie* woulde not haue the Hony of the springtime (which he calleth flowre Hony) to be medled withall, but to be spared. Others leaue no Hony at all for them, because of the aboundaunce of flowres that are then springing, which is the cheefe foundation of their Coames. Such as bee skilfulleſt, doe leaue the Bées a twelfth part of their labour: and this they doe about a thirtie daies

Fashioning of the coames.

after

after the swarme, which they make an ende of commonly in May. The olde and the corrupt Coames, are for the most part at this time taken away, and the sounde, and such as are filled with Hony, left: in taking of the Hony at the latter time of the yere, they vse to destroy the oldest stockes, to saue the charges of seeding of them. This driuing and gelding of Hyues, is not commonly vsed in the Countrey, but they rather according to their custome, at the end of the yere burne them, alleaging for their authoritie an olde Englishe Prouerbe of theyr owne. *Dryue Bees, and loose Bees: burne Bees, and haue Bees: and in some places they drowne them.* When you haue thus spoyled your Hiues, you shall carry all your Coames into some handsome place, where you meane to make your Honie, and stop vp all the holes and creuisses of the walles and windowes, as close as you may: for the Bees wil be very busie to recouer the praie. Your Hiues being thus driuen, if there be any ill placed Coames at the entrie, you shall alter them, and place them in good order, so as the toppes stande downewarde, so when you next geld them, you shall easlier take out the olde Coames, and leaue the new, and the ware shalbe the newer: which the older it is, the worse it is. Whensoeuer you take out your Coames, looke that you straine out the Hony the same daye, while they are hotte and newe. The Hony that you take at the full of the Moone (as *Plinie* saith) yeeldeth most, and the fayrer the daye is, the thicker it is. The Coames being taken out, let them rather bee warme then heated, least by ouer heating them, you straine out the ware with the Hony: afterward, put them into a good strong bagge, and with a Presse, or other instrument made for the purpose, or with a Wicker basket, presse out the Hony, but see that before you presse it, you seuer from it such Coames, as haue in them young Bees, called with some Grubbes, or any red or ruddie drosse: for these with their euill iuice corrupt the Hony. When the Hony is thus strained out, it is put into earthen vessels, and suffered to stand vncouered a fewe daies til it haue wrought, and cast vp aloft all his Dregs, which you must often skim off with a little sticke: but in many places they are not so curious, but iumbled all together, and so

sell

sell it grose as it is: The best Hony is alwaies in the bottome, as the best Oyle aloft, and the best Wine in the midst.

CHENOBOSCVS. What Countries yeldes the best Hony, and which count you best?

MELISSEVS. The best Hony was in the olde tyme thought to bee in *Athens*, and in *Cicyll*: it is nowe though verie good that commeth from *Moscouia*, and the Northeast Regions. The Hony at the beginning is thinne as water, and after the straining, it worketh like newe Wine, and spurgeth: at the twentieth daie, it wareth thicke, and after wardes, is couered with a thinne rine, or filme, where the froth of the purging is gathered together. The best Hony, and least infected, the Bees doe gather from the leaues of the Oke, the Lindtree, and the Reede. There is three sortes of Hony, the best kinde is that which is called *Authim*, or flowre Hony, made in the Spring time: the nert, is Sommer Hony, or hally hony, made in thirty daies after the tenth of June, when the Dogge beginnes to come in, the thirde is Heath Hony, a wilde kind of Hony, and not allowed, being gathered after the first shewers of *Autum*, while the Heath is in flowre: and therefore like the Sandie Hony. The best Hony (as *Diophanes* saith) is cleare, yellowish, smoth in touching, and fine, roping, if it be drawen in length, and long, sticking together, clammy, and harde to be got a sunder: the Hony that is of the worst making, is to bee boyled. Bread, if it bee dipped in it, doth straight corrupt it, and therefore take heede you put it not where breade hath beene. The fragments of the Coame that haue once been pressed, being taken out, heated, and strained againe, doe make a seconde Hony, which you must put vp, and keepe by it selfe, for spoiling of the other. Naughty, & counterfet hony, is discerned by the burning, for the ill Hony burneth not cleare, as the said *Diophanes* witnesseth. The drosse that remaineth, after the pressing, after that you haue diligently washed it in sweete water, must be put in a brasse Caldron, and putting a little water thereto, melted vpon the fire, which when you haue done, you must strain the Ware through a Siue, or such like thing made of Strawe, or Rushes: and after seeth it againe, and powring it into some vessell with water,

The best Hony.

Three sortes of Hony.

Breade corrupteth hony.

The making of Waxe.

water, frō whence you may easely take it, make it vp in cakes, or what fashion you like. *Plinie* writeth, that the Coames must first bee washed well, and afterward dried in the darke, for the space of three daies, and the fourth daye set vppon the fire in a newe earthen vessel, so as the Coames be couered with water, and then strained through a Ciue: last of all, boiled againe in the same vessell, and the same water, and so poured into vessels with colde water, hauing their sides nointed with Hony. The Wax will be verie white after it hath stand in the sunne, and bēne twise sodden: you shall make it blacke with the ashes of Paper, and being mingled with Vermillion, it will be red, and so otherwise coloured as you list.

CHENOBOSCVS. If in the making of your Hony your Bées bee almost consumed, what waies haue you to repaire them?

Bees decaied. The repairing of them.

MELISSEVS. When as an olde stocke is come to bee small, and that you are to furnish out the number, you must destroy (as I said) the new king in the spring time, when there is a newe brode in the Hiue, that the newe people without discorde, may dwell with their olde parentes. And if so bee the Coames haue not yelded a newe brode, you must take the dwellers of two or three other Hiues, and put them into one, but so (as you remember before) to sprinckle them with some sweete licour, and so shut them vp with sode conuenient for them, til they bee fully acquainted, leauing but little breathing holes about the Hiue, and keepe them thus enclosed three daies. Others doe vse to kill the eldest king, but that *Columella* alloweth not: but if the king be very olde, (the age of Bées shall shortly be shewed vnto you) and the people alwaies giuen to sedition, then shal you chose a king from the Hiues, that haue most number of kinges. I tolde you before howe you shoulde make them agree, when you put two swarmes together, least they should destroy one another, that is, to take away the kings of the newe swarmes.

CHENOBOSCVS. What if the whole stocke be decayed by taking the Hony, or by sickneſſe and diseases, will they breede againe, or may they be repaired by art?

MELIS-

MELLISSEVS. By both, though the breeding and ingendring of Bées, is verie doubtfull with *Aristotle*, neither dare he after his long disputations, affirme any certaintie therof: sometime hée reciteth the opinions of others, some thinking that they are ingendred by copulatiõ, the drone being the male, and the Bée the female: Other saying, that they bring forth yong, but doe not ingender, but that they gather their yong ones, but from whence, they know not. Some say, from the flowres of *Marioram*: some, from the flowres of the Rée de: others, from the Oliue flowres, because when soeuer there is great plentie of Oliues, there is also greate swarmes of Bées. There are againe that thinke the Drones to bée so gathered, and the Bées to be brede onely of the kinges: and a little after, he saith, The yong are best brede, when the Hony is made, they labour with their legges the Wax, and with their mouth they cast out the Hony into the Celles, and hauing laid their yong, they sitte vpon them as Birdes do. The little Worme, or Grubbe, being thus hatched while he is small, lieth crumpled vp in the Coame: afterward, sprawleth abroad by his owne force, and falleth to feeding, cleauing so to the Coame, as hée seemeth to be tied. The brode of the Bée, and the Drone, is white, of which commeth little Wormes, that after growe to Bées, and Drones: thus much, and more, saith *Aristotle*. In other places he would seeme to gather, that the Bées are ingendred of the kings, saying that if this were not, there were no reason for such thinges as are committed in their gouernment, and that the kinges by good reason remaine still in the Hiue without any trauaile, as onely borne for breeding. Beside, they be greater, as though their bodies were purposely framed for generation: and they punish the Drones. It is not very likely, that the children should punish the Parentes, therefore the Bées are not ingendred of Drones. Besides, it is a great argument, that Bées are ingendred without copulation, that their brode lieth very small at the first, wrapped vp in the holes, or Celles of their Coames, whereas al other Flies and Wormes, that are bredde by copulation, doe long ingender, and quickly lay in great nelle, according to the kinde of the Worme. *Plinie*

Breeding of Bees.

folliwing herein *Aristotle*, affirmeth, that Bées doe sitte as Hennes do vppon their Egges: and that which is hatched, is at the first a small white wo:me lying crosse the hole, and cleauing in such so:t, as it séemeth to féede. The king is at the first, of a yellowish colour, as a chosen flowre, framed of the finest substance, neither is he b:edde a Wo:me, but with winges at the very first. The other common so:t, when they begin to haue fashion, are called Nimphes, as the D:ones, the *Sirens*, and the *Cepheus*, whose heades, if any man chance to pull of, they serue as a delicate fode to the b:eeders. After a little time, they pow:e into them fode, and sitte vppon them (making a greate noise as it is thought, to p:ocure a heate necessarie fo:r their hatching) till b:eaking a sunder the filmes that encloseth euery one of them like an Egge, the whole b:ode commeth fo:th. *Plinie* addeth, that this was séene and obserued at Rome, in a Hiue made of Lanterne ho:nes: the whole b:ode is finished in fiue and fourtie daies. As sone as they are b:ought out, they are taught to trauaile straight waies with their dammes, the yong people waiting p:esently vppon their yong king. There are sund:y kinges b:edde fo:r failing, and when they come to age, by common consent, the foulest and vntowardest of them are destroied. That there is two so:tes, and what fashion they be of, I told you before.

CHENOBOSCVS. Let vs now:e heare something of their age.

The age of Bees.

MELISSEVS. Their age (they say) may thus be know:en. Such as are not aboue a yéere olde, doe shine, and loke as they were newly oyled: the olde ones bée rowe, shagheard, w:inckled, lothsome, and ilfauoured to loke vppon, howbeit, fo:r making of Coames, these are the best. *Aristotle* in his booke before mencioned affirmeth, that Bées liue fi:e o:r seuen yéeres, and that if a stocke continue niene o:r tenne yéeres, the kéeper of them hath good lucke. *Plinie* w:iteth, that one stocke was neuer séene to continue aboue tenne yéeres, not though you supplie the places of the dead euery yéere with newe: fo:r commonly in the tenth yéere after their first hiuing, the whole stocke dieth. And therefo:e to auoide the mischiefe of being vtterly de-

stitute,

ſtitute, it is good to encreaſe the number of your Hiues, with newe ſwarmes euery yéere. And if ſo bée your Bées, through ſudden ſtorme, tempeſt, or colde, lie dead vpon the grounde, you muſt gather them togither into a platter, or a broade baſon, and lay them in your houſe toward the South, ſpecially if the weather bée good, after, caſt amongſt them Aſhes of Figge trée woode, being ſomething more hotte, then warme, ſhake them gently vp & downe, ſo as you touch them not with your handes, and ſo ſetting them into the ſun, they will (as *Varro* ſaith) quicken againe. To whom *Columella* ſubſcribing addeth, that ſuch Bées as you finde dead vnder your Hiues, if you lay them vp in a dry place all the Winter, and bring them out into the Sunne in the Spring, when the weather is faire, and ſprinckle them with the foreſaid Aſhes, they will recouer within a few houres. They that liſt, may proue it: I haue not hitherto tried it. *Marcus Varro* holdeth opinion, that Bées are ingendred ſometime of other Bées, and ſometimes of the bodie of a yong Bullocke putrified, reſting this Epigrame of *Archelaus*.

To reuiue Bees that be dead.

Making of Bees.

Of Steere that ſtrangled is, are children ſtrangely bred,
Of Horſe ingendred is the Waſpe, and Bees, of Bullocke ded.
The Horſes breede the Waſpes, the Bullockes breede the Bees.

For a yong Dre, or Stéere, being ſtrangled, corrupted, and caſt into ſome ſuch place, where the putrified vapour cannot breath out, and flore of herbes and flowres agréeing with the nature of the Bées thruſt into the bodie, as Time, *Caſſia*, and ſuch like, wherewith the vapour may bée tempered, you ſhall hereof quickely haue Bées, euen as you may of the bodie of a Horſe like wiſe ordered, haue Waſpes and Hornettes. *Virgil* hath deſcribed both the maners of ingendring of Bées, and the firſt ſort, in theſe words.

This oſe, you woonder would, doth pleaſe the Bee,
The Chaines vnchaſt of Venus they deteſt:
To file themſelues with filthy lecherie,
They iudge vnmeete, nor will be ſo increaſt.

But from the plantes and pleaſant flowres ſweete,
They fetch their tender broode, and hence they get:
Both King and Court, and what ſoeuers meete,
To rayſe their walles, and Empire vp to ſet.

Bees made of a Steere.

The other maners, or repairing Bées by art, the ſame Poete eloquently thus touched.

But if your Bees do happen all to die,
The breeders gone, that ſhould the race renew:
His leſſon learne, whoſe skilfull cunning hie,
Made Bees, with blood of Bullockes that he ſlewe. &c.

The maner how Bées are ingendred of a Bullocke, *Virgil* doth largely diſcourſe out of *Mago*, and *Demberitus*. You muſt frame a little houſe foureſquare, about ten cubites in breadth, and as much in height, with foure windowes, on euery ſide one. A yong fatte Steere being brought hither, his Noſe, his Eares, and al other open vents ſtopped, and filled with linnen, dipped in Pitche, muſt bée beaten with numbers of Clubbes to death, ſo as both the bones and the fleſh, may be broken without any blood: for of the blood, commeth the Bée. Afterwarde, the houſe being déepe ſtrawed with Time, and the Bullocke laide vppon his backe, the doores and the windowes muſt bée cloſe ſhut vp, and ſo plaiſtred, as there ran no aire enter. Three weékes after, the windowes muſt be opened on euery ſide, ſaue where the winde bloweth ſtrongeſt, & the light and the aire let in: when it hath béen welcomed & refreſhed, the windowes muſt bée ſhut vp againe, and made as cloſe as before: and being opened the eleuenth day after, you ſhal finde the houſe full of Bées, and nothing left of the Ore, ſaue the hornes, the heare, and the bones: they hold opinion beſides, that the Kings are ingendred of the braine, and the other Bées of the body.

PVLLARIVS. I like not ſo coſtly cunning by Bées.

MELISSEVS. Of the ſame opinion is *Columella*: I tell you but the order of the olde skilfull fellowes, you may chooſe whether you will trie it.

CHENO-

CHRYSOPOLIS. I had rather you would tell us what sicknesses and diseases they are subiect to, and howe we may know the sicknesses, and in what sort to helpe them.

MELISSEUS. I will willingly shewe you. The signes and tokens of their health, is if they be lively quicke, and make their numbers of their lawe strayght, hee meately, and equally wrought: if they go about their businesse cheerefully, and if they looke faire and smoth. Their signes of their not being in health, is if they looke lothsomely, horrible and heary, except in the time of their labour, when they commonly looke like labourers, or busie, or if you see them carrying out of dead carkasses, and following the corses, after the maner of mourners, or that you heare no noise, nor murring amongst them. These signes when you see, *Columella* willeth you to giue them meate in little troughes of Reedes, specially Hony sodden, and grounde with Galles, or Roses. You must also to heale them, perfume them with *Galbanum*, Wasins, or olde stringes of Grapes. If the king happen to die, the common people inuite and mourne with great heauinesse, neither will they make any prouision for their owne sustenance: and therefore if you feede them not, they will famish themselues.

PISSINARIUS. With what diseases are they most vexed?

MELISSEUS. They are many times infected with the pestilence, against which you know no other remedie, then to lessen the Hiues somes somes. Their cheefest and earely sickenesse is in the beginning of the Spring, when the Sapurge and the Elme worketh flowre: for as vpon newe fruits, so at their first comming abroade, enticed with these newe flowres, being almost hungerstarued with the winter passed, they feed so greedily, as they fall into a Flix, whereof if they be not quickly remedied, they die. For Sapurge doth lose the bellies of al other creatures, but the flowres of Elme, bringeth onely the Flix to the Bee. And therefore in such Countries, where there is great plenties of these trees, the Bees continue but a while. *Columella* teacheth you against this disease, to giue them Rosemary sodden with Water and Hony: some againe vse to giue them

Signes of sickenesse in Bees.

The diseases of Bees, and the remedies.

them the fatte of Hony vnmixte: as also the graines of the Pomegranate beaten, and drunken with Wine, or Raysins with the like quantitie of Dates kneaded together, and giuen them in sharpe Wine, boyled in an earthen vessel, and powred into little troughes. Hony is eaten by an Beaste called *Mumellus*, with a yellow haire, and purple feete, of the eyes of whose tayle, being sodden in olde Wine, and strained out, is very good to be giuen them. *Columella* out of *Virgil*, teacheth how to remedie them in this sort. First, to take out all the festred and corrupt Combes, and to giue them fresh meate, and after to perfume them with smoke. It is good also to put to a vessell Hony, a medicine true, as I haue before shewed, many times they die of a disease that they call the great deadly, which happeneth when they haue made so much Wax, as they thinke they shall be able to fill, and afterwards, by stormes and tempest, many of them be destroyed, so that the remaine cannot fill the Combes, whereby the emptie partes of the Combes become rotten, and so by little and little vtterly both the Hony, and the Bees. For whereby the onely necessary is either to put in Bees sufficient to fill vp the cellis, or if you haue no such Bees, to cut away part of the Combes before they come to be naught, which you must do with a very sharpe knife, for feare of displacing the rest of the Combes. A cause besides many times of the death of the Bees, is their too much prosperitie, as when there are diuers yeares great abundance of flowres, and the Bees so busie in their feeding, that they forget their feeding, with ouermuch carrying themselues with trauaile, they die, not hauing any heart behind them. It is called *Blapsigonia*, when either by Hailestone, Southhailestone, or Sauranstone, they leese the heart behind them. To remedie this, it is good euery third day, to shutte vp the Hiues close, leauing but very small holes, out of which they can not creepe, for shall they be forced to take to their heade, when as they can not otherwise range abroad. Many times besides they are the cause of their owne deathes, when perceauing their Hony to goe awaie, they feede to greedily. Their owne Hony doth also many times destroy them: for being touched with it on the backe, they are so limed, as they cannot flie:

What hurtes Bees.

and

and Mise not onely kill Bees, but also all other like creatures, Flies and Wormes. They hate all filthy sauours, and sting such as smell of ointments: they are often besieged with Waspes, Hornettes, and great Gnattes: the Swallowe doth oftentimes spoile them: the Woodpecker doth with his long tong, thrust into the Hiue, licke vppe their Hony, and diuers other Birdes (as I haue said before) annoy them. The Toade blowe th them, and sucketh them vp at their owne doores, who sustaines no hurt by their stinging. Sheepe are also hurtfull and troublesome to Bees, in whose fleeces, they so tangle themselues, as they can hardly get out. In the wilde woodes of *Sarmatia*, where they make their Combes in the hollowe Firre trees, the Beare, for the desire of the Hony, climeth vp to them, and robbeth them. Against these Beares, the Beekeepers, vse to hang before their Hiues, great Maules and Beetels, which the more angerly the Beare shoueth aside, with the greater sway they come vppon his head againe, whereby the Bees are well defended. The sauour of Creuisses, if any man boile them neare to them, doth kill the Bees: the *Ecco* is also a great enimie to them, that with her resounding, doth shake and feare them, and hurtfull to them is also the mist. The Spyder is also their deadly foe, and where they can preuaile, make hauocke of the Hiues, setting their webbes and nettes in euery corner, to ouerthrow the poore Bees. The night Butterflie, that flieth about the Candell, is hurtfull to them two waies: for they both consume the Combes, and of their excrementes, lefte behinde them, is ingendred mothes, in the very wood beside, breadeth a Worme that deuoureth the Wax. These hurtfull Vermine, the carefull keeper must diligently labour to destroye, and preuent. And Balme should be planted by all such bushes and plantes, as offendeth them, not suffering weedes or such to grow neere them: and to keepe all hurtfull cattell from them, letting them alwaies haue such things at hande, as they most delight in. For the keeper hath worke enough to turne him to all the yeere long: for after the twelfth of March, their Hiues must be opened and looked vnto, that al the Rubbish and filth of winter, may be swept away, and the Spiders that spoile the Combes, plucked out,

To keepe Bees fro Beares.

Hiues purged in the spring.

and that they may be smoked with double meales of Dry dounge or linnen, (as I spake of before) for smoke is of nature pestilent to the Bees. And though it be troublesome to the time to them, yet is it certainly very holsome for them. The Waspes, besides Drones, and buttersies, must be killed, lightly dreaming like a pestilence to the Country, doe kill downe your hiues with your doung the Parent of the Ore, and laying it upon the coales, make your smoke: by this your Bees shall not be kept still in health, and shall be better about their labor: this kinde of purging them must be often vsed, from the Calendes of Aprill, till the fall of the Leafe. The Keeper must keepe himselfe (as I aduise before) cleane from all vncleanenesse, lecherie, and all vncleans and strong sauering things, for they loue to be purely and faithfully looked vnto (as they well deserue.) About an eight and fortie daies after the entring of the Sunne into *Aries*, they begin to swarme, and at the same time do many thinges perish, that haue stiffe and obdurate bodies. About the same time, are bredde in the vtermost parts of the Countries a breede of a great biggenesse: which some count to be the kinges: others call them Drones, because they do eate vp the Bees, and therfore thinke it good to destroy them. From the rising of the seuen starres, that is, from the xv. daies of May, till the tenth, or the twelfth of June, they vse to cast their swarmes, at which season, they must be carefully looked vnto for going away: from that time, till the rising of the Dogge, or the comming in of the dogge daies, which is about thirtie daies (as *Columella* saith) the harueſt is both for Honie, and Combe. In what sort the Hiues are to be dressed and gouerned, is shewed before: but at this time, and till the middle of September, the Hiues must be opened euery tenth day, and smoked. The Hiues being thus smoked, you must refresh the Bees, with sprinckling and casting into the emptie parts of their Hiues, verie fresh and colde water: and if any thing remaine vncleane, it must be swept away, you must sweepe it out with a Dusse tong. Besides, the Mothes, if they appeare, must be swept out, and the Buttersies killed, which breeding in the Hiues, are commonly a bane to the Bees: for they both eate vp the Waxe, and spoile their

Smoke good for Bees.

Oestri.

Times for swarming.

their young, doe breed a kinde of Wasps, that they call Hive Gothes. These Butterflies, as *Columella* teacheth, you may To destroy butterflies.
know the Spring to bee (at which time there is greatest number of them) destroy in this sort. You must have a Basket of Beatle hery high and straight, narrowe necked and mouthed, in the bottome whereof, you must have a light, and set it in the evening neare unto your Hives, and you shall see all the Butterflies straightwaies fall in the light, and while they play about the flame, they burne themselves, while they can neither get up, by reason of the straightnes, nor shun the fire, by reason of the kindled coales. Betweene the rifting of the Dogge, and of the Beard-starre, which are almost fifty daies, you must take good heede, your Bees be not spoyled by Phonetes, which at that time vexe them, even at their owne doores. After the rising of the Beard-starre, about the twelfth, or fourteenth of September, untill the second houre of the night of Pony: From that time, till the setting of the seven starres, which is about fourteene daies, the Bees do provide for their winter store, of the flowres of Heath, Camamile, and other bushes and shrubbes, of which provision you neede take nothing, lest you disadvantage them, and drive them about: From the setting of the seven starres (which is about the mid time of November) the beginning (if this may be called *Hiems*) of Winter. The Winter time all the Winter long, upon such store of Pony, as they gave them for their fat this time, the Hives must bee opened and cleansed of what so ever filth is in them, and diligently dressed, for during the Winter time, your No sturring of Bees in Winter.
Hives must neither be opened nor sturred, and therefore in the ends of the Summer, while the weather is yet mild and temperate, your Hives being made cleane in some sunny day, see that you shut them, leaving a little clift, or chink that may reach to the very bottome of the Hives, not leaving any lower space, whereby the Hive shall be the warmer. When you have this done, close up every fit and open place with Clay, and with old dung quite round it, especially the lower part, leaving only a little hole in some corner at. You must make them also against the extreme Tempests, with good couples of straw and boughes, some laid to put in the Hives;

small

small Vessels being vnaded, to bring their Hony: these Bees neuer keepe their Bees vnlesse all the Winter, and whereas with vs if they happen to lacke fewe, they leaue them still sufficiently prouided, it hath been found that they liue of fewe vpon them, as they finde nothing but the bare leaues: howbeit, as long as their Hony lasteth, they neuer meddle with the Wiues. It is very good and necessarie (as I told you before) to set them meate in little Troughs of Reedes, to defend them from the cold: when Winter is past, in the space of 40 dayes, they make an end of all their Hony, grasping their keeper vnder the throate liuerally with them. It hath often also been time, that their Commers being emptie, they haue continued fighting, till the Ides of February, and hanging to the Combes, as if they were dead, haue yet retained their life: but least they should lose it altogether, it is good to put into their Hiues some Vnces of the Pipes, whereby they may fashion their liues, till the Spring do with her approching, prouide a better season. After Aprill time, when the weather will suffer them, they begin to shift about for themselues: for after the Summe is in the Crab, they neuer rest, but trauaile painefully euery day, and gather dainties and necessaries for their liuing. Besides, because Bees loue places warme and fruitfull, as they please flowres both Summer and Winter: therefore in such places, where after the Spring and Summer (at which times, both Beanes, Mapes, Willowes, and other plantes and hearbes, in euery place do flowre) the flowres vse fayle, they are carried of diuers (and that in the night, as I told you before) into such places, wherein there is aboundance of late flowring hearbes, as Time, wilde Sauerum, and Rosemary, vnder which they may be fedde, gather fewe at their pleasure, and, as Varro saith, that Bees in the olde time, were brought from the fieldes of Hybla, to the pleasures of Tarentum, and so transplanted in diuers other places, to maintaine with nectar their, from place to where the flowres be consumed in the Spring, to the Summer flowres, as Thyme, and such other: and often that, about the ende of the Solstice, it is plaine Tarentum with Heath, Rosemarie, & such other late bearing flowre. For the auoiding of

this

this inconuenience of carrying from place to place, I will shewe you in what sorte I haue ordered my Beeyard at home. And Maister Walter Herlbach hath shewed you before in his Garden many good hearbes, and yet not whereto they serue: I will shewe you a fewe plantes that I haue set about my Bees, serueing both for their commoditie, and the healthe of my household. I haue chosen of a great number, such as be most necessarie, and of greatest vertue: whose speciall vertues and wonderfull workinges, giuen onely by the most gratious and bountifull framer of the Worlde, and being as it were sucked and drawen out by the tasefull toile and diligence of the Bee, must needes aboue a greater perfection to their Hony, and their Ware. I haue first enclosed the Yarde, where my Bees standes, with a Quickset hedge made of Blackethorne, and Honysucle, the one of them seruing the Bee with his flowres at the beginning of the spring, and the other at the later ende of summer. The first, the Blackethorne beareth a pleasant white flowre, so much the welcomer to the Bee, as it is the very fare well of the Winter: for he commonly flowreth not till the Winter be past. These flowres newly gathered and steepes all a night in the best and strongest Wine, and after wardes distilled in *Balneo Mariæ*, being drunke, helpeth any paine in the sides, as hath been certainely proued. *Tragus* the Germane confesseth, that with this onely water, he hath cured all maner of paines about the stomacke, hart, & sides. Wine made of the flowre, and preserued vntill July, or August, when the bloodie flixe most raigneth, is a soueraine medicine against it. The other, the Honysucle, or Woodbine, beginneth to flowre in June, and continueth with a passing sweete sauour, till the very later ende of the Summer. The water thereof distilled and drunke, two or three dayes together at times, allwageth the heate of the stomacke, helpeth the Cough, and shortnesse of breath. Rages of linnen dipped therein, and applied, doe heale any heate of the Eyes, or Liuer. Next vnto my Hiues, I haue planted the sweete hearbe *Melissa*, or *Apiastrum*, called in English, Balme, with a square stalke, a leafe like a smoth Nettle, and a yellow flowre, and groweth almost in euery Hedge, an hearbe well knowen to the olde

Blackthorne.

Woodbine.

Balme.

dine Women in the Countrey, and greatly vsed of the Bee. This *Melissa*, or Balme, sodden in white Wine, and drunke two or three mornings together, purgeth the breast, helpes the shortwinded, comforteth the hart, driueth away the dumpishe melancholy, that proceedeth of Melancholy, helpeth the falling sickenesse, and almost all other diseases: being chopped small, and steeped a night in good white Wine, and after wards distilled, is greatly commended, not only in deliuering women from their pangues and griefes of the Mother, being drunke to the quantitie of three or foure Spoonefuls, but also cureth the paine or fainting of the heart, called commonly the passion of the hart. *Cardanus* greatly commendeth this hearbe, for the comforting and renuing of a decayed memorie, and affirmeth, that it is a maker of sweete and pleasant sleepes. Next vnto this Angelica. haue I growing that sweete and precious hearbe *Angelica*, whose seedes I first receiued from that vertuous and godly lady the Lady Cobham in Kent, a gentlewoman that setteth her whole felicity in the feare and seruice of the almighty: this hearbe is in stature, bignes, leafe, stalke, and fauour, so like vnto Louage, as they may hardly be discerned the one frō the other, the leafe doth in manner resemble the Figge leafe, saue that it is more iagged, and indented rounde about. If any man be sodainly infected with the pestilence, feuer, immoderate sweat, For want of Treacle, you may take the whole dramme. let him take of the roote of this *Angelica* in poulder, halfe a dramme, and putting to it a dramme of Treacle, mingle them together with three or foure spoonefuls of the water destilled of the leaues of the same, and after he hath drunke it, let them lie a sleepe falling, for the space of three houres at the least: thus doing, by the helpe of God, he shall escape the danger: the roote steeped in Vineger and smelt vnto, and the same Vineger sometimes drunke fasting, doth preserue a man from the pestilence, the ghost, the roote and the water thereof, is soueraine against all inward diseases, it driueth away the collections of a Plurisie beginning, helpeth vlcered and corrupted Lounges, and is good against the Collicke, Strangurie, and restraint of Womens purgations, and for any inward swelling, or inflamation, the iuice thrust into a hollow tooth, asswageth the paine, the water

droppeth

dropping into the eare, doth the like: the same iuice and water put into the eie, quickeneth the sight, and taketh away the thin skins & rines that couereth the eie. Beside, a most present remedy in all deepe & rotten sores, is the iuice, the water of the powder: for it cleanseth them, and couereth the bone with good flesh. It was called in the olde time *Panacea*, or *Healeal*. Vnto this *Angelica*, haue I growing in great plentie, *Cardus Benedictus*, or blessed Thistle, which the *Empirickes*, or common *Prouisers*, doe commend for sundrie and great vertues, affirming, that it was first sent out of *India*, to *Fredericke* the Emperour, for the great vertue it had against the headache, or megrime, being eaten or dronken. Likewise they say, it helpeth against the dasing, or giddinesse of the heade, maketh a good memorie, and restoring the hearing. For the proofe of his great force against poison, they bring forth a yong maiden of *Pany*, that hauing vnwares eaten of a poisoned Apple, and therewithall so swollen, as no Treacle, nor medicine could cure her, was at the last restored to health, by the destilled water of this Thistell: and likewise that a boy, into whose mouth as he slept in the fielde, happened an Adder to creepe, was saued by the drinking of this water, the Adder creeping out behind, without any hurt to the child. In fine they affirm, that the leaues, iuice, seede, and water, healeth all kind of poisons, and that the water hath healed a woman, whose breast was eaten with a canker to the very Ribbes. I haue also set in this little plot of grounde, greate store of the hearbe called *Nauallaria*, or Penigrasse, which creepeth close by the ground, hauing vpon a long string little round leaues, standing directly one against the other, and a yellow flowre, like the Crowfoote. It is a soueraine hearbe for healing of woundes, not onely outward and greene woundes, but also inward sores and vlcers, specially of the Longes, wherof there hath been good proofe. *Tragus* affirmeth, that he hath seene dangerous and desperate woundes cured with this hearb, being boiled with Houy and Wine, and dronke. It healeth crukerations of the breast and Longes, and may be well giuen to those that cough, and are short breathed, and to little children vexed with the hin cough, who by reason of their tender age may take

Cardus Benedictus.

Penigras.

take no stronger medicine: I haue seene good plentie of it growing by the shadowy Ditches, about great Peckam in Kent. I haue beside there growing *Scabious*, an hearbe that groweth commonly in Corne, with a iagged leafe, lying round vpon the ground, and thrusting out in Summer a long stalke, with sundry branches, the flowre growing in bleiue knoppes, or tuftes, like Vonicoames. This hearbe being sodden with white wine, and drunke, doth helpe the Plurisie, against which diseases, the women of the countrey, that many times take vpon them to bee great *Doctresses* in Phisicke, do still the water thereof in May, and giue it to be drunken at each time, two or three spoonefuls, not only against the Plurisie, but against inward impostemes, coughs, and all diseases of the breast. Against impostemes, diuers (as *Tragus* writeth) doe make this composition, they take a handfull of *Scabious*, the heads dried, of Liquerisse cut small an ounce, twelue Figges, Fenell seede an ounce, Aniseede as much, Orras halfe an ounce, these they lay all a night in water: the next day they boile them, till a third part be consumed, and after making it sweete with Sugar, or Syrup of Roses, they giue it warm in the morning and the euening, wher with they say, the impostume is ripened, made soft, and cought out. Scabious.

PVLLARIVS. I remember, that passage by the house of that honorable Baron, the Lorde Cobham (whose house you shal seldome see without great resort, by reason of his noble disposition, and honourable intertainement that hee giueth to all commers) I chaunced to see in his Parke at Cobham, a certain herbe called *Veronica*, wher of I haue heard vertues. Veronica

MELISSEVS. What can I also shewe you amongst the hearbes that I haue about my Bees: it is called of some *Feuerfoume*, and *Veronica*, as it is supposed of a certaine French king, who was thought by the iuice thereof, to bee cured of a great Leprosie, it is called in English Fluellin: it creepeth low by the ground, as Penigrasse doth, and beareth a leafe like the Blackthorne, with a bleuish speckled flowre, with a seede inclosed in little powches, like a shepheardes purse, and groweth commonly vnder Elmes. *D. Thierri.* writeth, that the iuice thereof, is maruelous against the Pestilence, and contagious ayres,

ayres, and that he himselfe hath often times proued. The water of the hearbe steeped in white Wine, and destilled therewithal, he hath cured sundrie times, hot burning and pestilent feuers, as well in yong men, as in old. *Hieron Tranſchweyg*, commendeth it to bee singular good for all diseases of the Spleen: the shepheardes of Germany, giue it with greate profite made in powder and mingled with salt, to their cattell diseased with the cough, being steeped in Wine and destilled, it is a most present remedie in all Pestilent feuers: being geuen two ounces thereof with a little Treacle, and after laied warme in bedde, and well couered, it expelleth the poison by sweate, and driueth it from the hart. The water of this hearbe taken certaine daies together, two ounces at a time, helpeth the turnesicke giddinesse of the heade, voideth fleame, purgeth blood, warmeth the stomacke, openeth the stopping of the Liuer, healeth the diseases of the Longes, and the Spleen, purgeth the Raines, the Matrice, and the bladder, it driueth out sweat and venome, helpeth the Iandise, the stone of the Reines, and other greeuous diseases. You shall also haue amongest these plantes of mine, the good sweete hearbe *Cariphilata*, or of some *Benedicta*, of thers, *Sanamanda*, called in Englishe *Auens*, whose rote whether it be greene, or olde, resembleth the Cloue in sauour: the leafe is iagged, rowfe, of a darkish greene, and not much vnlike to *Agrimony*: the flowre is yellow, and after the falling thereof, leaueth a prickly knoppe like a Hedgehogge: the rote, the longer it hath growen, the sweeter it is: the speciall vse of this rote in some countries, is to be put in Wine in the spring time: for it maketh the Wine to taste and sauour very pleasantly: which Wine, as many holde opinion, doth glad the hart, openeth the obstruction of liuer, and healeth the stomack, that is ouer burdened with cold and grosse humors: this rote boiled in Wine and geuen warme, doth ease the greefe of the stomacke, or the belly, proceading of either colde, or winde. Hard by this hearbe, haue I planted the greate water *Betony*, called of some, *Ocimastrum*, of *Mathiolus*, *Scrophularia Maior*: it hath a greate square stalke, and bigg leafe indented round about: the flowre is in colour Purple, and in fashion like the Shell of a Snaile: Auens.

Snaile, it flowreth in June and July, and groweth moſt by waters in ſhadowy places. *Tragus* teacheth to make a ſpeciall oyntment thereof, ſeruing againſt all Scabbes and Sores, wherewith he ſaith, he hath ſeen people ſo mangie, as they haue ſeemed euen Lepers to bee cured: his oyntment is this. Take the hearbe, rootes and all, gathered in May, waſhed and well cleanſed from all filth, ſtampe it, and ſtraine out the iuyce, and keepe it in a narrowe mouthed Glaſe well ſtopped, wherein you may keepe it a whole yeare, and when ſo euer you liſt to make your oyntment, take of the ſame iuyce, of wax and Oyle, of eche a like quantity, & boile them together vppon a Chafindiſh of coles, ſtirring them well, till they bee incorporated, and ſo vſe it. *Matthiolus* teacheth to make a ſingular ointement thereof againſt Kernels, the Kings euill, and the Hemerodes: his order is this. You muſt gather the rootes in the ende of ſommer, and after that you haue made them verie cleane, ſtampe them together with freſh Butter, and putting them into an earthen veſſell cloſe couered, ſet them vp in ſome moiſt & dampiſh place, ſuffering it there to remaine for the ſpace of fiftéene dates: afterwardes, let the ſame Butter bée melted with a ſoft fire, and being well ſtrained, lay it vp for your vſe. There haue

Cardiaca

I alſo an other excellent hearbe, called in Latine *Cardiaca*, I know no name for it in Engliſh, except you will cal it Motherwort, and indéede it is the verie true Motherwort: it groweth by highwaies, and néere to ſtone walles, it hath a leafe ſomething like a Nettell, but more indented, the Leaues nert to the roote being iagged like the Crowfoote: it groweth buſhing with many ſtalkes. I haue ſéene it plentifully in Surry, and ſome ſtore of it about Maidſtone in Kent: it is of great force againſt any ſickneſſe of the hart, whereof it taketh his name: it helpeth Crampes & Palleys, it cleanſeth the breaſt from fleame, it killeth Wormes in the body, openeth cold obſtructions, prouoketh vrine, and Womens Courſes: being made in powder, and a ſponefull of it giuen in Wine, it wonderfully helpeth the hard labours of Women.

Betony.

CHENOBOSCVS. I marualle you haue no ſtore of *Betony* alſo: for I haue ſéene the Bées labor diligently vpon it,

and

and haue heard that it is of great vertue.

I haue great cloes in deede of it, but that I forgate to tell you of it, it is knowen to commonly, as I nede not to describe it vnto you: whosoeuer is troubled with bracking of wind and weakneſſe of ſtomack, and thoſe whoſe ſtomackes retaine not their meate, or whoſoeuer feeles ſower belching from his ſtomacke, and is therewith often troubled, let them continually vſe *Betony*, either the hearbe and flower boyled in Wine, or the water diſtilled, or the Conſerue (as they cal it) of the flowres. And if ſo be you lacke the Conſerue, or the water you may vſe the dry hearbe in powder, either by it ſelfe, or with Hony: women that are troubled with the mother, may vſe this hearb for their remedie. To be ſhort, the flower, leafe, and rote of *Betony* ſodden and drunke, or howſoeuer you wil, in Electuarie, Conſerue, Sirope, Potion, or powder, as you liſt to take it, is ſinguler good in the diſeales of the Stomacke, Liuer, Spléene, Kidneies, and Bladder, it freeth the Matrice from obſtruction, and draweth from thence all hurtfull moiſtures. For conſumptions of the Longes, Coughes, Dropſies, continuall and putrified Feuers, proceeding from the Stomacke, boile the leaues and flowres of *Betony* in Honied Water, and you ſhal haue preſent help. Thus haue I ſhewed you what kind of hearbes I haue planted about my Bées, to the ende they ſhould haue food at hand of the ſweeteſt, and the holſomeſt: I haue ſhewed you alſo the vertues of the hearbe, the flowre, and the water. that you may vſe for your owne commodity: onely this warning I giue you, that you doe not diſtill them, as the vnskilfull doe, in ſtilles of Lead, Tinne, and Braſſe, which poiſoneth and ſpoileth the water, but in Glaſſe Stils, ſet in ſome veſſell of water vpon the fire, whereby your water ſhalbe moſt perfect and holſome. The difference of theſe two diſtillings, appeareth plaine: for example, in Mogmwood, which if you diſtill in your common Stillatories, the Water commeth out ſweete, hauing gotten a corrupt quality by the nature and corruptiõ of the metall: whereas, if you do it in Stils made of Glaſſe, looking that the Glaſſes bée well cloſed round about, your water ſhall haue the very taſte, ſauour, and propertie of the hearbe.

With these Glasse Stilles you may rectifie your Aqua vitæ, and you may draw out of euery herbe, the Water, Spirite, Oyle, and Salt, to the great comforte of sicke and olde aged persons. Yet besides great plentie of Sauery, Heath, Camomille, and Lauender out the Beeyarde, Beame, in whose boxes the Bee much delighteth. I keepe you here peraduenture too long in so small a matter.

Small is the thing, yet small is not the guilt,
If gracious gods permitte, and Phœbus skill.

As the heathen Poet writeth: but I will here make an ende of my talke, that hath perhaps been thought too long.

FINIS.

Soli Deo.

Olde Englith rules, for pur-
chaſing Lande.

Who ſo wilbe wiſe in purchaſing,
Let him conſider theſe points following.

FIRST ſee that the lande be cleare,
In title of the ſellar.

And that it ſtand in danger,
Of no womans dowrie.

See whether the tenure be bond or free,
And releaſe of euerie feoffee.
See that the ſeller be of age,
And that it lie not in morgage.

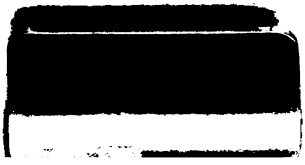
Whether a taile be theroff found.
And whether it ſtand in ſtatute bound.

Conſider what ſeruice longeth thereto,
And what quitrent thereout muſt go.

And if it be come of a wedded woman,
Thinke thou then on couert baron.

And if thou may in any wiſe,
Make thy charter with warrantiſe.
To thee, thine heires aſſignes alſo,
Thus ſhould a wiſe purchaſer do.

¶ Imprinted at London for Iohn Wight, dwelling in Paules Church-yarde, at the great Northdoore of Paules.

Anno Domini.

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